Boston Institute of Finance

NICSA

THE NATIONAL INVESTMENT COMPANY SERVICE ASSOCIATION

Mutual Fund Industry Handbook

A Comprehensive Guide for Investment Professionals

Lee Gremillion

with assistance from PricewaterhouseCoopers

Foreword by John C. Bogle

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Published by John Wiley & Sons, Inc., Hoboken, New Jersey.
Published simultaneously in Canada.

Previously published by The National Investment Company Service Association in 2001 as *A Purely American Invention: The U.S. Open-End Mutual Fund Industry*.

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Library of Congress Cataloging-in-Publication Data
Gremillion, Lee L. (Lee Louis)
Mutual fund industry handbook : a comprehensive guide for investment professionals / Lee Gremillion.
p. cm. — (Boston Institute of Finance series)
Includes bibliographical references and index.
ISBN-13: 978-0-471-73624-0 (cloth)
ISBN-10: 0-471-73624-4 (cloth)
1. Mutual funds—United States. I. Title. II. Series.
HG4930.G738 2005
332.63′27—dc22
2005016635

Printed in the United States of America

10 9 8 7 6 5 4 3 2 1

To Kathy, Andrew, and Christine

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Foreword

More than a half-century has now gone by since I opened the December 1949 issue of *Fortune* magazine and discovered the mutual fund industry. An Economics major at Princeton University, I was seated in the reading room of the then-brand-new Firestone Library, considering the choice of a topic for my senior thesis, which was due to be submitted some 16 months later. Determined to write on a subject never before explored in a Princeton thesis (there went Adam Smith, Karl Marx, and Lord Keynes!), I quickly realized that I had found my subject. As it turned out, I had also found a wonderfully rewarding career, the focus of my life-long vocation, and the mission I would pursue to this day: Serving the mutual fund shareholder.

The article that I read all those years ago was entitled "Big Money in Boston." It focused on Massachusetts Investors Trust (MIT), the industry's oldest fund (founded in 1924), its then-largest fund ($280 million in assets), and its lowest-cost fund (an expense ratio that would soon drop to 0.19 percent). MIT's beginnings are described in Chapter 2 ("A Brief History of Mutual Funds in the United States") of the sweeping and comprehensive compendium of the mutual fund industry that you now hold in your hands.

Titled *A Purely American Invention* when it was first published in 2000, the *Mutual Fund Handbook* is a remarkably important work. Sponsored by The National Investment Company Service Association (NICSA) and ably and authoritatively written by PricewaterhouseCoopers' former lead partner Lee Gremillion, it is a book whose time came at the perfect moment. If it had been written a quarter-century earlier in 1975, it would have been regarded as a death knell, for fund industry assets were then a miniscule $34 billion—and shrinking! Who could possibly have foreseen the remarkable sea change that would sweep the industry's assets to $7 trillion as the third millennium began in 2001?

A 56-Year Perspective

As I read this book, I am transfixed, and can't help reaching back in time to my first exposure to the industry 56 years ago. Until I read that 1949 *Fortune*

article, I had known absolutely *nothing* about mutual funds. Indeed, I don't even recall having any understanding of stocks and bonds. But after I'd completed my extensive research—my bibliography cited 23 books; 43 articles; three of the classic *Investment Companies* manuals, published annually by Arthur Wiesenberger & Company until 2001—and read the entire 4,217-page report of the U.S. Securities & Exchange Commission that led to the enactment of the Investment Company Act of 1940, I thought I'd gained a pretty solid understanding of the industry.

I chose the title "The Economic Role of the Investment Company"* for my thesis. While it explored many possible roles for the industry, it set forth a simple, overarching principle for mutual funds. In the introduction: "Their prime responsibility must always be to their shareholders." In the conclusion: "The tremendous growth potential of the investment company rests on its ability to serve the needs of both individual and institutional investors . . . to serve them in the most efficient, honest, and economical way possible . . . the principal function of investment companies is the management of their investment portfolios." Today, I continue to hold high these very same ideals.

Following my early study of the industry, I spent the next 23 years at mutual fund pioneer Wellington Management Company, laboring in the vineyards and becoming its chief executive in 1967. Then as now, I was a diligent, determined participant in virtually all aspects of the fund business—administration, operations, marketing, investment management—and by 1974 I had come to believe that I knew *everything* about mutual funds that I needed to know. Today, however, with the sweeping changes that have taken place in the past 30 years, I sometimes wonder if I know *anything* that I need to know to remain an active participant in this wonderful business.

A Cottage Industry Becomes a Giant

In 1949, fund industry assets totaled $2 billion, spread among 91 mutual funds, largely common stock funds. Today, industry assets exceed $8 trillion, and there are 8,000 stock, balanced, bond, and money market funds, with a bewildering variety of strategies and objectives. Furthermore, with all of this growth and diversity, industry operations have become infinitely more complex, and modern information technology has placed abundant information and transaction flexibility in the hands of fund managers and fund shareholders alike. A small cottage industry has become a complex, multifaceted giant.

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*In 2001, the thesis was published in its entirety (along with 25 of my speeches) in *John Bogle on Investing: The First 50 Years,* the first volume of the McGraw-Hill series "Great Ideas in Finance."

The *Mutual Fund Industry Handbook* to the rescue! This book has already played a major role in filling the embarrassing gap in my knowledge. Its subject matter is nothing less than *how funds work.* It covers the industry's history (please remember, "those who ignore the past are condemned to repeat it"); industry structure; the investment management "front office" (portfolio supervision) and the "back office" (making the system work); the fund accounting, audit, and legal functions; the transfer agency, now handling 270 *million* shareholder accounts; customer service; distribution methods (including the different challenges faced by the broker, direct, bank, and institutional channels, as well as the similar challenges that *all* channels face in advertising and in retirement investing); the incipient trend toward globalization; and, of special significance, the dramatic changes now taking place in the industry as a result of the revolution in e-business and e-commerce.

I am profoundly impressed by the broad and comprehensive sweep of information and knowledge that this book makes available to industry participants, college and business school students, and anyone else with a serious interest in this industry. But I am even *more* impressed by the fairness and even-handedness it brings to its discussion of many of the controversial issues that face the industry today. Controversy is hardly surprising in an industry that I've often described as characterized by dog-eat-dog competition, and the multiple ways that various fund organizations compete—in distribution channels, in marketing, in advertising, in fund creation, in portfolio policy, in investment strategy—surely characterize any highly competitive industry.

But *cost* competition remains conspicuous by its absence. Remember MIT's 1949 assets of $280 million and its later expense ratio of 0.19 percent? Well, in 2005, despite a 22-fold increase in those assets to $6 *billion,* its expense ratio had *risen* to 1.17 percent, generating a more-than-100-fold increase in fund expenses. While MIT's expense ratio remains *below* the equity fund average of 1.60 percent, neither figure suggests that the staggering economies of scale involved in mutual fund management are being adequately shared—if shared at all—with fund owners. One need not agree with that conclusion in order to wonder whether the fine study of fund expenses provided in this book (based on limited publicly available information) shouldn't be supplemented by an extensive study of the impact of industry costs—not only management fees and expense ratios, but sales charges, portfolio transaction costs, and opportunity cost—on investor returns.

Since I completed my thesis in 1951, investment activity in the fund industry has increased in just about every measurable way. Funds themselves come and go at a much higher rate. While some 14 percent of the funds operating during the 1960s no longer existed when 1970 began, fully 55 percent

of the funds of the 1990s were gone at the dawning of 2000. Equity fund portfolio managers (virtually an unknown breed back then, when investment committees ruled the roost) now last on average just five years. Annual portfolio turnover, then about 15 percent, is now near 100 percent. And fund shareholders themselves, joining in this spate of activity, now redeem shares at a 25 percent annual rate, five *times* the five percent rate of 1960. I will not express here the strong opinions that I hold about these trends, but I hope that both those whose careers depend on the fund industry and those whose careers will shape its future will forthrightly consider their implications—specifically, the impact of this frenzied activity on the investment returns of the mutual fund investors whom we are all pledged to serve.

To the author's credit, the final chapters of the *Mutual Fund Industry Handbook* vigorously tackle these and other key issues. They include a fine discussion of industry life cycles, saturation, and alternative products, and jump unhesitantly into three especially contentious issues: First, fees and expenses; second, active management versus passive; and third, the state of "the market" in an industry that is, above all, market-sensitive. Surely the years ahead hold no shortage of challenges for all of us in the mutual fund field.

Years of Challenge

When I wrote the foreword to the previous edition of this book in 2000, I warned that our "soaring equity (fund) trees are unlikely to grow to the sky," and "we'd best be prepared to be tested under duress." It was easy enough to predict that the stock market bubble could not continue, for the record is crystal clear that long-run stock market returns are based on the relatively predictable *investment* fundamentals of earnings and dividends, not on the totally unpredictable *speculative* gyrations in price-earnings multiples. So the 50 percent stock market decline from the high in March 2000 to the low in October 2002, albeit perhaps overdone, largely reflected a return to reality. (With the subsequent market recovery, stock prices are now about 20 percent below their 2000 highs.)

In September 2003, another form of duress reared its ugly head in the mutual fund industry: the revelation of market-timing scandals in which fund managers allowed certain preferred investors, often hedge funds, to trade on the basis of previously determined net asset values, benefiting these traders at the expense of long-term fund investors, and enriching the coffers of the managers. More than a score of large fund managers participated in these unethical schemes, and state and federal regulators promptly jumped into action to attempt to prevent their recurrence. Soon after, other abuses came to light when "pay-to-play" arrangements—direct payments and trading of portfolio

stocks—emerged as a *quid pro quo* from fund marketers to reward brokerage firms for their sales efforts. In both cases, fines and penalties have been assessed against the malefactors.

Both the overexuberance of fund marketers to capitalize on the euphoria of the stock bubble and the market timing and distribution scandals were reflections of fund managers placing their own interests first, at the direct expense of fund investors. Too many fund firms seemed incognizant, or even defiant, of the public policy clearly stated in the Investment Company Act of 1940: Mutual funds should be "organized, operated, and managed" in the interest of fund shareholders rather than in the interest of fund managers and distributors. If mutual funds are to truly serve the needs of the scores of millions of families who have entrusted their dollars to them, honoring that policy—in word and deed alike—is essential.

There are yet other subtle changes taking place in the U.S. financial markets. As you read this book I'd like you to think about four implications of the rise of this industry to its preeminent position among our nation's financial institutions:

- First, with People's Capitalism as the new American ethos, what will be the social impact on our political system of the ownership of stocks by the preponderance of our citizenry? With *de facto* control of Corporate America by the public and its stewards, how can the citizenry be *against* big business when, by owning stocks, "we the people" *are* big business?
- Second, as mutual funds become the investment choice of American families, has our nation's legal (and ethical) system provided adequate protection of the rights of investors by their fund trustees? While it's easy to think of today's America as an *ownership* society, it is not. In fact, we have become an *intermediation* society, with investment intermediaries now holding the overwhelming majority of corporate stock. How can we assure that it becomes the *fiduciary* society that is so essential to investor welfare?
- Third, what are the implications of living in an economy that is becoming ever more financial market–dependent? Clearly, substantial investment risk has been transferred from corporations and financial institutions to individuals. With the financial markets inevitably subject to extreme waves of optimism and pessimism, will these swings be translated into greater volatility not only in the markets but in the economy itself?
- Fourth, what role will government play in the financial markets? Even today, as it tries to steer a stable course for our economy, the Federal Reserve focuses on the level of stock prices. But in the long run, stocks cannot be propped up at unsustainable levels by easy monetary policy or

encouraging words. So as common stocks inevitably enter the political arena, will our political authorities have the courage and the wisdom to let the markets take their own course as, finally, they must?

No matter how these issues are resolved, in the final analysis our job remains to serve our fund shareholders, just as it was the job of our founders when this industry began 80 years ago, and just as it was when I began to write my thesis 56 years ago. *No industry can long endure if it fails to effectively serve its clients.* We now know that it was the booming stock market of 1982–2000—the greatest bull market in all human history—that was responsible for so much of the industry's growth. But that exponential growth concealed serious shortcomings and a failing in this industry's responsibility to provide a fair shake to investors. Today, in the aftermath of the bear market that inevitably followed and the pervasive market timing and pay-to-play scandals in which managers and distributors placed their own interests ahead of the interests of the shareholders they were duty-bound to serve, we are being tested under duress. Addressing this situation is the acid test for any industry. In a book that he wrote nearly a century ago, Supreme-Court-Justice-to-be Louis Brandeis expressed it in these timeless words:

> *In business, the earning of profit is something more than an incident of success. It is an essential condition of success. But while loss spells failure, large profits do not connote success. Success must also be sought in the improvement of products, in a more perfect organization, in eliminating friction as well as waste, and in the establishment of right relations with customers and with the community.*

You'll get the most out of the *Mutual Fund Industry Handbook* if you keep in mind the title of Justice Brandeis' book: *Other People's Money.*

John C. Bogle
Valley Forge, PA

June 8, 2005

Acknowledgments

The publication of the *Mutual Fund Handbook* (previously published as *A Purely American Invention: The U.S. Open-End Mutual Fund Industry*) would not have been possible without the generous support of PricewaterhouseCoopers.

William M. Perkins, partner of PricewaterhouseCoopers and a director of NICSA enlisted his colleagues to assist in updating the content of the book to reflect the dramatic changes in the mutual fund industry since the 2001 edition. We thank them for their contribution: Retired PricewaterhouseCoopers partner Bob Rubin, partner Richard Grueter, Emilie Codega, Nicholas D'Angelo, Allen Goldstein, Patricia Guzzetti, Jennifer Horn, Jennifer Morray, Jean Scanlan.

Lee Gremillion guided the process throughout, and we were fortunate to have his commitment to this project.

Through our partnership with Boston Institute of Finance and its CEO Run Pruett, this book continues to be the basis for the very popular and successful on-line course—Certified Mutual Fund Specialist.

We thank Matt Kellen and Kevin Commins of John Wiley & Sons for their guidance and counsel.

All of these collaboration exemplify NICSA's core mission—to educate and inform all the constituents who make the fund industry a key player in our economy.

NICSA
Wellesley Hills
June 2005

chapter 1 | Introduction to the Industry

In 1980, only one in 16 households invested in mutual funds; at the end of 2003, almost one of every two U.S. households is invested in mutual funds. More than a third of mutual fund assets are owned in accounts saving for retirement.

—Investment Company Institute's
2004 Mutual Fund Fact Book[1]

Mutual Funds—Big Business by Any Standard

Open any issue of the *Wall Street Journal*, or the business section of any major newspaper, and you will find several pages of densely packed print labeled "Mutual Funds." These pages may list the names, prices, yields, and other key attributes of over 8,000 funds, each representing an investment pool in which individuals or institutions can participate. At the end of 2003, there were more of these funds than there were common stocks on the New York or American Stock exchanges. Collectively, these 8,000 or so funds represented over $7.4 trillion dollars of assets, about 18 percent of the total financial assets of the U.S. population. At the start of 2004, 22 percent of U.S. retirement funds were invested in mutual funds.[2]

These funds give more than 90 million people the opportunity to participate in the securities markets without having to become money managers themselves. They are professionally managed, pooled investment vehicles. A mutual fund allows individuals (you, me, anyone with some money to invest) and institutions (corporations, foundations, pension funds) to pool smaller amounts of money into a larger amount for investment. Investment management professionals then manage this larger amount to allow

- investment strategies that would not otherwise be feasible (such as buying bonds that only sell in very large denominations);

- achieving economies of scale (such as paying low broker commissions) that are not attainable when investing smaller sums; and
- reduction of risk by holding a diversified basket of securities.

As we will see below, mutual funds offer the investor a number of significant advantages compared to investing in individual securities.

Because of these advantages, mutual funds have gained an increasing share of the nation's financial assets. During 2003, mutual funds received 26 percent of households' purchases of financial assets—that is, households put this money into mutual funds rather than bank savings, individual stocks, or other investments. These mutual funds purchases went into long-term funds. At the end of 2003, mutual funds reached their highest level of household financial assets at 18 percent, increasing from 10 percent ten years earlier. During these ten years, there was a securities markets boom in the late 1990s, and then a securities markets decline in 2001 and 2002. During 2003, the total assets invested in mutual funds grew from $6.4 to $7.4 trillion. The increase in mutual fund assets in 2003 rose from investment gains rather than cash flows because cash flows into long-term funds offset the cash flows from money market funds. Investment gains are dividends that shareholders reinvested in the funds, and the increase in value of the stocks, bonds, and other securities the funds held.

To a large extent, the mutual fund industry is an American phenomenon. While mutual funds or similar investment vehicles exist in other countries, they are nowhere so popular as in the United States, although in recent years more worldwide investors are using funds as their investment of choice. At the end of 2003, the U.S. assets invested in mutual funds represented 57 percent of the worldwide total of open-end, pooled investment funds of nearly $14 trillion. France has the next largest mutual fund industry after the United States, with funds holding the equivalent of more than $1.1 trillion assets. Although the U.S. industry continues to have outstanding growth, increasing assets 34 percent between 1999 and 2003, worldwide total net assets grew 49 percent during the same five years. During the ten years from 1994 to 2003, the U.S industry's growth was 258 percent and the worldwide total net assets grew 236 percent.

The mutual fund industry is a significant component of the U.S. financial services sector and receives significant attention from the U.S Congress, federal regulators, and states who want to protect the interests of U.S. households and their retirement savings. At the end of 2003, approximately $2.7 trillion of retirement savings were invested in mutual funds, representing 22 percent of retirement assets—excluding social security benefits that Americans will need in the future to pay for their retirements. In 2003, it was estimated that the 8,000 funds generated over $80 billion in revenue and provided employ-

ment for over a quarter of a million people, with fund management companies, investment advisers, custodial banks, distributors, transfer agents, and other third-party service providers. Collectively, U.S. mutual funds owned about 22 percent of the equity of publicly held U.S. corporations, about 5.1 percent of the debt securities issued by the U.S. Treasury and various federal agencies, and about 18 percent of the bonds issued by municipalities (states, cities, and counties). In the past few years, authors have penned over 100 books advising investors how to use mutual funds to help them meet their financial goals. A number of universities have recently established courses in mutual fund management.

Mutual Fund Defined

Before going any further, a few definitions are needed. All the funds listed in the "Mutual Funds" section of the newspaper fall into one particular category: they are open-end funds. Open-end funds are ones that will always sell new shares to investors wanting to invest money, or redeem shares from investors wanting their money back, at a price dependent on the net asset value (NAV) of the fund. (Well, almost always—there are exceptions, which we will describe as we go along.) In addition, each fund in the paper is registered with the Securities and Exchange Commission (SEC) pursuant to the Securities Act of 1933, and, therefore, is available for sale to the public. By and large, when someone says "mutual fund" in the United States today, this is what he or she is talking about—a registered open-end investment company.

This book focuses on open-end funds. There are other types of funds and pooled investment vehicles, described briefly in the following paragraphs, but none approaches the stature of open-end funds in today's economy.

Closed-end funds were more popular than open-end funds during the early years of the industry. Closed-end funds do not purchase and redeem shares at a price dependent on NAV. Instead, they collect a pool of money, issue shares once to the investors in exchange for their money, and normally plan to neither issue nor redeem these initial shares thereafter. The shares of a closed-end fund trade on the secondary market (such as the New York Stock Exchange), just as the common stock of a corporation does. The market determines the share price one gets when buying or selling the shares, and this price may be different from the net asset value.

Today, closed-end funds have declined in popularity (for reasons discussed in the next chapter), to the point that their assets in 2004 represented just over three percent of those of open-end funds. We will not focus on closed-end funds in this book, except on occasion to contrast them with open-end funds.

Unit investment trusts (UITs) resemble mutual funds, but the portfolio of securities of a UIT is fixed at inception and not actively managed. The sponsor

of a UIT assembles a pool of money, purchases a basket of securities, and liquidates securities only in special cases (such as when a bond is called earlier than its maturity date). UITs are set up with a specified life span, after which they are liquidated, and many invest in debt securities. In general, holders of UIT shares purchase them to get a stable investment with a stated life span, although they usually can redeem their shares at any time at the current net asset value. At the end of 2003, Americans had UIT investments of less than $36 billion, a small fraction of the amount held in open end funds.

Variable annuities (VAs) are contracts sold by insurance companies, which are often backed up by mutual fund investments. The investor pays a lump sum or makes periodic payments; the insurance company invests this money in a portfolio of securities, often mutual funds. The value of this invested money goes up or down as the prices of the underlying securities rise or fall. After a specified period of time, often when the purchaser reaches retirement age, the insurer starts paying the investor an annuity. The amount of these annuity payments (or, the lump sum amount the contract holder may elect to take) varies according to the performance of the underlying securities.

The insurance contract allows the investor to defer the tax on the income earned from the investment until the money is withdrawn. This feature of VAs appeals to investors looking for ways to invest for retirement. On the other hand, variable annuities come with a cost—sales charges, administrative charges, and the mutual fund's expenses, or the costs required to manage the underlying investments when a mutual fund is not the investment of choice. The magnitude of these costs varies from one contract to another and from one insurance company to another. As of the end of 2003, Americans had about $866 billion invested in VAs[3] for which the underlying securities were mutual funds.

Hedge funds, another type of pooled vehicle, differ from mutual funds mainly because they are not aimed at the general public, but rather at the sophisticated and large investor. Hedge funds are private pools bound by contracts between the investors and the sponsors of the fund. In late 2004, the SEC, under the Investment Advisers Act, passed a new rule requiring hedge fund advisers to register. Typically, these funds require a minimum investment of $1 million or more, and typically pursue buy (long) and sell (short) investment strategies that may introduce more risk than do mutual funds that normally pursue only buy (long) strategies.

Hedge funds represent just one variation on a much wider theme—the private investment pool. Many investment management organizations will pool assets from among their clients to achieve economies of scale. For example, banks often create collective trust funds into which they put the individual assets of trust customers, instead of attempting to manage each trust account

separately. Insurance companies managing investments for other institutions (typically retirement plans), often do much the same thing. While these pools share some attributes with mutual funds, they are not offered to the general public, nor are they bound by the same regulations as are registered funds.

Private investment pools vary endlessly. At the small and simple end of the range lie the investment clubs (like the famous Beardstown Ladies). At the other end we find such entities as limited partnerships, requiring investments of $1 million or more, formed to invest in arcane instruments or special economic sectors (like Long Term Capital Management, a hedge fund). Each has its place in the U.S. financial landscape, but none looms nearly so large in that landscape today as the mutual fund.

Who Invests in Funds, and Why

Who owns these trillions of dollars' worth of mutual funds? Individual U.S. citizens own the lion's share—77 percent at the end of 2003. Institutions of various sorts—bank trust departments, pension plans, corporations—own the remaining 23 percent. The Investment Company Institute (the ICI, described in Chapter 3) has published a profile of the average mutual fund investor in 2003, some of the attributes of which are shown in the following table. As the table suggests, the typical mutual fund investor is solidly entrenched in the American middle class.

The growth in mutual fund assets over the past 20 years has been paralleled by the growth in the number of investors. In 2003, more than one in three American households owned one or more mutual funds. So why do so many Americans keep a large part of their investments in the form of mutual funds? Different investors will have different reasons, but the compelling ones include professional management, easy diversification, liquidity, convenience, a wide range of investment choices, and regulatory protection.

Professional management. Mutual funds provide access to professional investment management for individuals who otherwise could not afford it. Trust departments of banks and private investment counsel firms have long offered professional management, but the minimum threshold for these services is typically $1 million or more in assets. Except in a few special cases, mutual funds require minimum investments in the $1,000 to $5,000 range, making them much more accessible.

Diversification. In general, an investor reduces risk by investing in a larger number of securities, reducing the impact of a decline in value of any one of them. A mutual fund, with its large pool of assets, can economically hold a much larger portfolio of securities than any but the wealthiest individual investor could.

Household Owners of Mutual Funds Demographic and Financial Characteristics, 2003	
Demographic Characteristics	
Median age	48
Percent of households:	
Married or living with a partner	71
Employed full- or part-time	77
Retired	21
Four-year college degree or more	56
Financial Characteristics	
Median household income	$68,700
Median household financial assets	$125,000
Percent of households owning:	
Individual stocks, bonds, or annuities	64
IRAs	69
Defined contribution plan	84

Source: Mutual Funds Shareholders, 2004, Investment Company Institute (www.ici.org)

Funds can hold a wider range of security types than individuals as well. Individual securities of some types cost tens or hundreds of thousands of dollars each to purchase, putting them out of the reach of most individuals, but not of mutual funds. Individual citizens find it difficult or impossible to purchase foreign securities, but can easily buy shares in mutual funds that hold foreign securities.

Liquidity. Mutual funds must determine a net asset value (NAV) every business day, and redeem all shares offered for liquidation that day at that NAV. Shareholders are assured of being able to convert their holdings to cash whenever they want, through a well-defined and fair process (described in Chapter 7).

Convenience. Mutual funds are easy to buy and sell, both directly from fund groups and through intermediaries such as brokers or fund supermarkets. They offer a wide range of attractive features for their shareholders, such as check writing, automatic purchase and redemption programs, and 24-hour access to information.

Choice. An investor today can find a mutual fund to fit any investment goal he or she may have, from conservative to aggressive. In later chapters, we will see some of the types of mutual funds that provide this wide range of choices.

Regulation. U.S. mutual funds are subject to regulation and oversight by the Securities and Exchange Commission (SEC). Each fund must provide each potential investor with a prospectus, a document that discloses its goals, fees and expenses, and investment strategies and risks. Funds must provide periodic reports showing the fund's actual investment performance and financial statements, including its statement of investments at a point in time.

> ***Speaking of Costs: Basis Points***
>
> *A basis point is one one-hundredth of a percent (.0001). Since many fee and cost amounts are fractions of a percent, they are often described in terms of basis points. For example, the .35 of one percent of average assets that Charles Schwab charges funds to belong to its OneSource program is typically described as a "thirty-five basis points fee."*

There's No Free Lunch, However

Of course, the flip side of this coin is that investors pay for all these benefits. In 2003, they paid about two-thirds of one percent of the value of their fund assets for basic management services—investment management, administration, and the like.[4] Some shareholders paid commissions to intermediaries as they purchased shares of the fund. Many funds paid commissions to brokers as they bought and sold securities, commissions that are paid from the shareholder's assets. The specific amount any one shareholder paid depended on the fund (where fees range from about 20 one-hundredths of a percent to almost two percent of assets), and the distribution method (zero for funds that have no sales commissions to several percent for some funds that do involve commissions).

These fee amounts have been a source of controversy for decades. Almost every year brings shareholder litigation against management companies over fees, and arguments back and forth between attackers and defenders of the industry. The courts have largely sided against plaintiffs in these excessive fee complaints, and certain econometric studies have concluded that competition has been effective in controlling fees and others argue otherwise. The ICI has published studies showing that increasing competition in the industry has driven fees down. Industry critics have claimed exactly the opposite. The U.S. General Accounting Office studied the issue in 1999–2000 at congressional request, but failed to come to a conclusion about the propriety of fee levels. In late 2000, the SEC issued the report of its study of mutual fund fees and expenses. While it reached no strong conclusions about the appropriateness of fee levels, it did call for greater fee disclosure and tightening of certain fund governance provisions.

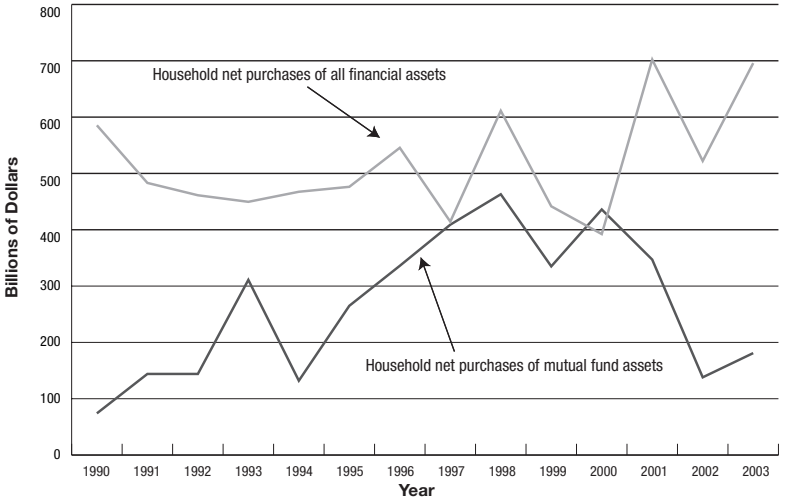
The battle rages on, and will surface in many subsequent chapters of this book. However, it is common sense that the lower a fund's expenses the more

Weighing in on Mutual Fund Fees—Some Comments from Industry Figures	
Strategic Insight (a mutual fund industry research and consulting firm)	"As industry critics continue to call attention to mutual fund fees, an SI study calculates that fund managers receive advisory fee revenues of under $100 annually per average account… [this] leaves $30 or less in profits per average-fund account, net after expense and taxes; hardly an excessive amount."[5]
Jack Dreyfus (an industry pioneer)	"Unless you have made a study of the market and have time to continue to study it, and have confidence in your judgment, it's well worth a half a percent or one percent to put your money in the hands of professionals."[6]
John Bogle (another pioneer)	"…enormous amounts of the expenses paid by fund shareholders are not benefiting those very same shareholders. In effect, high fees are paying for huge profits to fund managers…"[7]

that is left as performance for investors. Likewise it can be argued that if a fund's performance is outstanding, the investor should be willing to pay more for that performance.

In any event, fee amounts obviously have not deterred the majority of American investors, who in recent years have poured money into mutual funds. In particular, they have turned to mutual funds as their preferred way of buying into the stock market. As Figure 1.1 shows, over the past 15 years, U.S. households have become net buyers of mutual funds. In the early 2000s, the decline in the securities markets made net selling universally common for a time. Since 1999, funds have continued to

Figure 1.1 Household net purchases of mutual fund shares and financial assets, 1990–2003.



Source: 2004 Mutual Fund Fact Book, Investment Company Institute (www.ici.org)

form a major component of U.S. households' net purchases of financial assets, although not in the dominating fashion that they did during the long bull market.

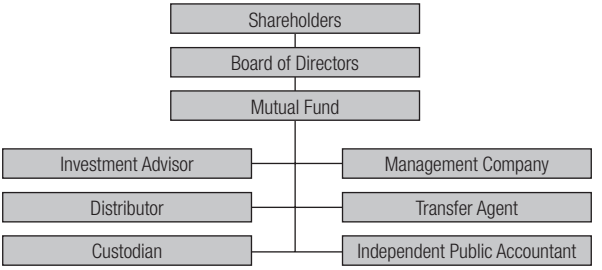
The Structure of a Mutual Fund

Mutual funds have shareholders, directors, assets (cash and securities) and contracts, and not much else. They differ significantly from most business organizations in that they have neither employees nor plant and equipment. (The reasons for this will be explained in the next chapter.) Instead, each fund, as represented by its board of directors, contracts with other organizations to provide the functions it needs. Figure 1.2 shows the ICI's depiction of the structure of a fund and its supporting organizations.

Board of directors. Mutual funds are typically organized as corporations or trusts, and each fund has a board of directors or trustees to oversee the way the business operates and to ensure that corporate policies are followed. A fund's board differs from the normal corporate board of directors in that the Investment Company Act of 1940 requires fund directors to look out for the investor. (The Act, which defines much of the regulatory environment for mutual funds, is discussed in detail in the next chapter.) Specifically, the board must oversee matters where the interests of the fund and its shareholders differ from the interests of its investment adviser or management company. To make this work, during 2004, the SEC amended its rules under the Investment Company Act of 1940 to require at least 75 percent of the board to be unaffiliated with the management company. In January 2004, SEC Chairman Donaldson speaking to fund directors at a Mutual Funds Directors Forum Conference, said,

> *To be truly effective, you must be forceful in requiring your funds and their service providers to establish new standards of integrity. Investors must be*

Figure 1.2 The structure of a mutual fund.



Source: 2004 Mutual Fund Fact Book, Investment Company Institute (www.ici.org)

Mutual Fund Management Companies—A Variety of Forms

- Some management companies are private corporations, owned by a small group of individuals. The most striking example of this is Fidelity Management and Research, which is owned mostly by members of the Johnson family of Boston.
- Some are subsidiaries or components of larger companies, such as Merrill Lynch Investment Managers, a subsidiary within the Merrill Lynch organization.
- A number of managers companies are independent, publicly traded corporations, such as T. Rowe Price (NASDAQ: TROW) and Eaton Vance (NYSE: EV).
- One management company is a singularity: The Vanguard Group, Inc. The Vanguard funds themselves own the management company lock, stock, and barrel. This mutual ownership structure aims at keeping costs to the fund at a bare minimum by eliminating any need for the management company to make a profit.

> *able to see for themselves that fund companies, and fund directors are living up to their fiduciary obligations and the spirit underpinning all of our securities laws.*[8]

Management company. The management company typically performs the administrative functions at the core of a fund complex—a family of related funds, all contracting with the management company for some or all of the services they need. In addition to administration, a management company may provide investment management, distribution, and transfer agent functions. The configurations of management companies—which functions they perform internally and which they turn over to third parties—vary endlessly. Management companies themselves can take any of the many organizational forms available to American businesses.

Throughout the course of our discussions we will see examples of management companies, the way they are organized, and the functions they perform. For most fund families, the management company performs at least the basic administrative services, including overseeing the performance of other companies providing service to the fund and ensuring that the fund complies with federal requirements.

Investment adviser. The investment adviser does the actual picking of securities to buy and sell to maintain an investment portfolio that meets the fund's objectives. The fund contracts with one or more advisory firms to provide this service in return for an investment management fee, usually a percentage of the assets under management.

Distributor. A mutual fund usually distributes its shares through a principal underwriter or distributor, which may be part of the management company, or

may be a separately contracted third party. The principal distributor then sells the shares directly to investors, or to investors via other intermediaries, such as brokers or financial advisers. Distributors receive commission payments from shareholders, either as part of transactions or in the form of asset-based fees.

Custodian. The custodian actually holds the inventory of securities that the fund owns. The Investment Company Act of 1940 requires that funds place their holdings in custody as a means of protecting the investors, and most funds today use qualified banks to do this.

Transfer agent. The transfer agent keeps the shareholder records, executes the buy, sell, and other transactions the shareholders request, calculates and disburses dividends, and provides a range of reporting and other services. Many management companies provide complete transfer agent services themselves, others completely outsource these functions to third-party providers, and still others employ a mix—they perform some transfer agent functions internally and outsource others.

Independent auditors. The various acts governing the industry require that financial statements be audited by independent auditors who are registered with the Public Companies Accounting Oversight Board. A mutual fund audit involves procedures to substantiate the existence of the portfolio securities and the security prices that underlie the fund's net asset value. The former Director of the SEC's Division of Investment Management, Paul Roye, speaking to fund directors in January 2004 at a Mutual Fund Directors Forum conference, said that the independent auditors

> *can illuminate weaknesses in controls and identify issues that could result in risk for the fund. Auditors provide expert insight and, importantly, independent insight on a variety of fund accounting and related issues, such as pricing and valuation issues. Thus, you should make sure that your executive sessions and other meetings with fund auditors are meaningful discussions and not perfunctory exercises.*[9]

There are a number of organizations that provide other, more specialized services for mutual funds—printing and mailing, literature fulfillment, escheatment, cash handling, legal services, and so on. All of these organizations—what they do, how much they cost, how they evolved, and what issues and controversies attend them—form the subjects of the chapters that follow.

chapter 2 | A Brief History of Mutual Funds in the United States

The prosperity of the investment company industry may be easily contrasted with the unhealthy condition of other financial services. It is not without irony, however, that much of this success is the result of an early history that included an era of widespread abuses and the reasonable legislation that was to follow.

—William A. Campbell[1]

A review of the history of mutual funds in the United States explains much of why the industry is structured as it is today. This history lies largely within the twentieth century, and runs through several distinct periods:

- the beginning, which includes the years from the turn of the century through the early 1920s;
- the boom years of the twenties, the "era of widespread abuses," culminating in the Crash of 1929;
- the Depression years, during which "reasonable legislation," including the Investment Company Act of 1940, was developed and passed;
- the slow but steady growth period from 1940 through the late 1970s;
- the explosive growth period of the 1980s and 1990s;
- the recession of the early 2000s and the perceived imperative to retain assets under management at almost any cost.

This chapter examines each of these periods, particularly focusing on the events and legislation that have shaped the industry into what it had become by 2004.

In the Beginning

As with most industries, the mutual fund industry's family tree and moment of birth defy precise specification. Most observers trace the earliest predecessors of today's U.S. investment companies to various types of pooled investment vehicles

formed in the 1800s, mostly in Europe. The Foreign and Colonial Government Trust, founded in London in 1868, may have been the first to pool money from smaller investors specifically to achieve investing economies of scale.[2] The Foreign and Colonial most resembled what we would call a unit trust today, and it invested primarily in government debt (permitting no more than £100,000 in the securities of any one government). A number of its features hinted at those of modern funds, such as its three percent sales charge, and its 25-basis point management fee.

British law of the late 1800s provided a favorable environment for pooled investment funds, and by 1875 eighteen trusts similar to the Foreign and Colonial had been formed, with total paid-in capital of over £6.5 million. Some trusts—notably the Scottish American Investment Trust, formed in 1873—aimed specifically at investing in the United States. (For reasons mostly associated with the happenstance of personalities, two Scottish cities, Edinburgh and Dundee, became trust centers along with London.) These English and Scottish investment trusts resembled closed-end funds, and generally emphasized income generation for their participants.

Most investment funds of this era were European, because the United States before World War I was a debtor nation, with little domestic investing beyond that done by wealthy individuals.[3] Nevertheless, a few vehicles similar to the British and Scottish investment trusts were established in the United States around the turn of the century. The New York Stock Trust (1889), the Boston Personal Property Trust (1893), and the Railway and Light Securities Company (1904) contend for the title of first American investment trust. The facts needed to establish which of these has best claim to the title, however, "have been lost in the haze of the years."[4] In any event, the proportion of American investing represented by these various investment funds was miniscule—a small fraction of a percentage point of the value of U.S. household financial assets.

The Roaring Twenties and the Crash

World War I changed the debtor/creditor relationship between the United States and Europe. The war destroyed much of Europe's industrial base, providing an opportunity for U.S. industry to expand dramatically into new markets. After a post-war correction from 1920 to 1921 during which commodity prices declined from their war-inflated price levels, the American economy entered a strong growth phase. Americans in the twenties had money to spend and money to invest. Just as important for the fund industry, 20 million Americans had learned something about investing during the war, when the United States government had sold them Liberty Bonds, some with denominations as small as fifty dollars.[5]

Shapers of the Industry: Edward G. Leffler

Edward Leffler, a midwesterner of Swedish descent, was working as a securities salesman in Boston in 1924 when he became the catalyst for one of the most important developments in the industry. During his six years of selling securities, Leffler had never been satisfied with the way small investors were treated, and believed that Americans needed a mechanism via which Wall Street could help them get ahead financially. After studying the investment trusts of the day, he came to believe that the ideal vehicle would be a pooled fund with four key attributes:

- it would be professionally managed;
- it would diversify its holdings to reduce risk;
- it would keep costs within tolerable limits; and
- it would redeem its customers' shares at any time.

This last feature, redemption on demand, became the hallmark of the American open-end fund.

Leffler promoted his ideas for three years, finally interesting the Boston brokerage firm of Learoyd, Foster, & Company enough that they hired him and formed the Massachusetts Investment Trust on March 21, 1924. Leffler soon left the fund because its management did not initially allow redemption on demand, although they changed their minds shortly after Leffler departed.

In 1925 Leffler, who had started his own firm, launched a new fund called Incorporated Investors. For the next few years Leffler traveled the country selling both Incorporated Investors and the concept of the open-end fund. Leffler sold mutual funds on and off for the rest of his career, ending up in the 1930s selling the shares of another pioneering fund, State Street Research Investment Trust. He testified at the SEC hearings in 1936, where he continued to demonstrate his concern for the welfare of the individual investor, concern which had done much to shape the industry itself.

The bull market of the twenties drew many Americans into investing directly in common stocks. Many, however, were attracted to the advantages of professional management, diversification, and economies of scale that an investment trust offered (at least in theory). The result, as one study of the industry states, was that "…trusts came thick and fast. Investment trusts were formed by investment bankers, by brokers, by industrialists, by banks, and by trust companies."[6]

While the organizational details varied from trust to trust, the investment trusts of the twenties fell into two basic types. The first and most popular type resembled the British and Scottish investment trusts, or what we today call closed-end funds. The organizers established a company and sold shares (and sometimes bonds) to raise money to form the investment pool. Once the pool was formed, the company's shares traded on a secondary market, just like

the stock of any other company. In the five years leading up to 1929, 56 of these closed-end investment trusts were formed. At the time of the Crash, the 89 closed-end investment trusts open to the public held assets valued at about $3 billion.[7] By way of comparison, the total value of stocks on the New York Stock Exchange at the same time was $87 billion.

The other major type of investment company structure appeared for the first time in the twenties: the open-end fund, sometimes called the "Boston-type" investment trust.[8] A few open-end trusts had actually been formed before the twenties, but these had not been made available to the public. For example, the Alexander Fund, established in 1907, began as an investment for a small circle of friends (although it was eventually opened to the public). The Alexander Fund was open-end because its by-laws provided that participants could withdraw their units at any time and receive the net unit value as of that date.

The first open-end fund to be offered to the public at its inception was the Massachusetts Investors Trust, founded in 1924. Within a year it had attracted 200 investors, whose 32,000 shares were worth $392,000.[9] MIT today would be called a large-cap equity fund—it started out by investing in nineteen blue chip industrial firms, fourteen railroads, ten utilities, and two insurance companies. It sold at an effective sales charge of five percent. Other open-end funds followed, but they lagged the closed-end funds in popularity—only 19 open-end funds had been established by 1929, with assets totaling a mere $140 million.[10]

The Crash of 1929 changed everything. Many of the closed end funds had indulged in risky, even abusive, practices that magnified the effect of the stock market crash on their investors. A few trusts were nothing more than Ponzi schemes, outright frauds. Many of those that operated legally did things that today are illegal for good reason, including:

- failing to disclose the holdings in the portfolio (so that the securities, and therefore the fund, could be valued at whatever price the fund managers wanted);
- borrowing money to inflate the size of the fund and enhance the investor's return via leverage (but exposing the shareholders to the loss of their stake to senior debt-holders); and
- purchasing securities not via arms-length transactions, but rather as favors to help insiders unload undesirable stocks.

The speculation of the late twenties had driven up the prices of the closed-end funds even higher than it did the prices of the underlying stocks and bonds. By mid-1929, the average closed-end trust was selling at a premium of almost 50 percent of the value of its portfolio of holdings.[11]

This combination of speculation, unsound practices, and leverage made the stock market crash even harsher for closed-end trust holders than it did for

holders of common stock. Between the end of 1929 and the end of 1930, the stock market, as reflected by the Dow Jones Industrial Average (DJIA), fell from 248 to 164, a 34 percent drop. At the same time, the closed-end funds declined from an average premium of 47 percent *above* net asset value to an average discount of 25 percent *below* net asset value—a drop of 72 percent (not counting the simultaneous drop in the net asset value itself). As a result, closed-end funds became poison to investors—not a single new one opened during the 1930s.

While the Crash deflated the value of the open-end funds as well, it also demonstrated their strengths. The open-end funds' own policy of redemption upon demand at net asset value safeguarded them against many of the problems that devastated the closed-end funds. They couldn't hold any large proportion of their portfolios in unmarketable securities, because they might have to sell them at any time to meet investor redemptions. They couldn't borrow heavily for the same reason. And because their share price was always set at net asset value, speculation could not inflate the price of fund shares to extravagant levels (beyond what it was doing to the prices of the underlying securities). As a result of these factors, open-end funds fared much better than closed-end funds. MIT, for example, lost 83 percent of its value between September 1929 and July 1932, (as opposed to an 89 percent decline in the DJIA), but it gained investors and new money during that same period.

The Crash of 1929, traumatic as it was for so many people, served as a crucible for the fledgling mutual fund industry. It exposed the structural flaws that the roaring twenties mentality had fostered, and confirmed the utility of properly managed and controlled funds. In particular, it demonstrated the fundamental value of the open-end structure. As one historian has put it,

> *By providing shareholders with ready liquidity, redemption on demand made open-end funds more secure in an era of insecurity. There is no precedent for the open-end structure in Britain. It is a purely American invention, and one of the great innovations of the U.S. capital markets.*[12]

The Thirties: Depression and Regulation

In 1932 the U.S. electorate voted in Franklin Roosevelt and his promise to replace the Republican laissez-faire approach to government oversight of business with a more active regulatory approach. Not surprisingly, seven years of regulation followed the decade of excess, as the federal government attempted to enact safeguards against the practices that had led to so many of the problems in the financial services industry. Along with much legislation addressing other industries, Congress passed four major acts that affected mutual fund industry practices.

Present at the Beginning: Three Funds That Predate the Crash of 1929

The recent explosive growth of the industry means that the vast majority of mutual funds today are veritable infants. Of the 8,000+ funds registered at the end of 2003, over three-fourths were less than 15 years old, and over half less than 10 years old. But the history of a handful of funds stretches back to the early days, before the Great Depression.

Massachusetts Investors Trust—Most industry historians credit this fund, established in 1924, as being the first open-end mutual fund offered to the public in America. It devoted its portfolio exclusively to common stocks and, unlike many funds of the time, fully disclosed the portfolio holdings to the shareholders. For the first eight years of the fund's existence, the trustees ran it out of their back pockets, meeting whenever needed in each other's offices to decide what stocks to purchase or sell. In 1932, with fund assets at $20 million, the fund opened its own offices, hired its first full-time employee, and switched from simply holding well-known blue chip stocks to an explicit value style of investing.

MIT survived the depression, was the first fund to register under the Securities Act in 1933, and by 1959, when *Time* magazine featured it in a cover story on mutual funds, was the biggest fund in the industry at $1.5 billion. Today, MIT is part of the MFS family of funds, and its prospectus describes its investment objective as "reasonable current income and long-term growth of capital and income." As of the middle of 2004 , the fund held assets valued at around $6 billion, according to Simfund® MF data.

State Street Research Investment Trust—State Street Research Investment Trust contends with MIT for the title of the first open-end fund. Three Boston friends, Paul Cabot, Richard Saltonstall, and Richard Paine, had formed an informal investment account into which they pooled their own money for buying stocks. In July, 1924, shortly after MIT was founded, they incorporated this fund and opened it to other investors. In 1932, with fund assets evaporating in the wake of the crash, State Street Research hired salesman Ed Leffler as one of the industry's first dedicated distributors. Leffler succeeded in tripling the fund's assets in 1933 to $21 million, and grew them to $27 million in 1934.

Today the State Street Research Investment Trust is characterized as a growth and income fund, and its prospectus describes its investment objective as "provid[ing] long-term growth of capital and, secondarily, long-term growth of income." At the middle of 2004 the fund held assets totaling about $1.4 billion, according to Simfund® MF data.

The Pioneer Fund—In 1928 Philip Carret, then a journalist working for *Barron's*, started a small, family-funded investment trust that he named the Fidelity Investment Trust. He managed the fund for 23 years, pursuing an investment philosophy he described as "find[ing] things that made sense and gave a reasonable return." In 1951 Carret changed the name to the Pioneer Fund, another name he claims to have "dreamed up."[13] Carret remained president of Pioneer until 1963, when he relinquished the post to Jack Cogan.

Today's Pioneer Fund pursues "reasonable income and capital growth" primarily through a value approach to investing in U.S. equity securities. At the end of 2004 the fund held total assets valued just over $7 billion. According to the prospectus, the average

annual total return for the fund (class A shares) since inception in 1928 has been 13.41 percent, as compared to the S&P 500 index return of 10.91 percent over the same period. A hypothetical investor who put $10,000 into the original Fidelity Investors Trust in 1928, reinvested all dividends and capital gains, and held the shares until the end of 2003 would have seen the $10,000 grow to over $50 million!

The Securities Act of 1933

The Securities Act of 1933 addressed a much broader arena than just mutual funds—it set rules for any public offering of securities. It required that anyone who wanted to offer securities to the public must register those securities, and provide any prospective investors with a prospectus that adequately disclosed the nature of the offering. It also explicitly prohibited deceit, misrepresentation, and other fraudulent practices in the sale of securities, and regulated the types of advertisements that could be made for securities offerings.

Since the shares of mutual funds are publicly traded stock, they fall under the provisions of the Securities Act of 1933 and its subsequent rules. Consequently, each fund must prepare a comprehensive registration statement for review by the appropriate regulatory body, and each must be described by a prospectus that is delivered to the investor before he or she can purchase fund shares. The regulations pursuant to the Act also require that a fund be prepared to provide additional details in a Statement of Additional Information whenever an investor requests.

The Securities Exchange Act of 1934

The Securities Exchange Act also broadly addressed the exchange of publicly traded securities. It created the Securities and Exchange Commission (SEC) to enforce federal securities laws. It further required securities exchanges and broker dealers to register with the SEC, and established a number of requirements for record keeping, reporting, financial responsibility, staff qualifications, and business practices that broker dealers must meet to sell securities.

For mutual funds, the 1934 Act established rules that distributors and transfer agents must follow. Transfer agents must register with the appropriate regulatory agency (the Federal Reserve Board for banks, the SEC for almost anyone else); failure to follow the rules of conduct results in an agent's deregistration.

In addition to the 1933 and 1934 Acts, which addressed the securities industry broadly, Congress passed two acts in 1940 that specifically addressed the fund industry and its investment advisors.

The Investment Company Act of 1940

After dealing with regulations for a variety of sectors of U.S. business, Congress finally focused its attention squarely upon the investment companies. In the Public Utility Holding Company Act of 1936, Congress directed the SEC to make a study of investment companies and report its findings. The SEC did so, and began public hearings on investment company regulation in 1938. From its research and public hearings, the SEC originated a first draft of legislation that was introduced by Senator Wagner of New York in March 1940. This version was so harsh in the measures it adopted to prevent abuses that one industry figure stated, "The cure they suggested was a bill that would burn down the barn to kill the rats."[14]

Since it was clear that Congress would not pass the SEC's initial version of the bill over the objections of the industry, SEC and industry representatives worked over the next few months to hammer out a bill that provided enough investor protection to satisfy the regulators, but still gave the investment companies the freedom they needed to operate. With Congressional attention increasingly diverted toward impending war, this compromise passed easily, and the Investment Company Act of 1940 became effective on November 1.

The 1940 Act specifically took aim at eight troublesome practices that had "adversely affected" the "national public interest and the interest of investors."[15] These eight types of abuses, and the salient points of the approach the Act took to dealing with each, are shown in Table 2.1. Subsequent chapters discuss the operational implications of the Act's provisions for the various components of the industry. Fundamentally, however, the 1940 Act formed the foundation upon which all regulation specific to the mutual fund industry has been based.

The Investment Advisors Act of 1940

Finally, the Investment Advisors Act of 1940 required that any organization (other than a bank, which would be regulated under banking statutes) that provides investment advisory service to mutual funds must register with the SEC. The Act also imposed restrictions on the contracts between investment advisors and funds. Advisory contracts could not extend beyond two years, must provide the fund the ability to terminate without penalty upon 60 days' notice, and must receive the approval of a majority of the fund's outside directors to be renewed.

The industry won an important tax concession when the Revenue Act of 1936 established that "mutual investment companies" (arguably the first

official use of the term "mutual" to apply to the industry) could avoid paying federal tax on their income if they met a number of requirements, including distributing all taxable income to their shareholders, and redeeming their shares upon demand. Because this latter requirement limited the pass-through tax status to open-end funds, it gave them a clear advantage over the closed-end funds and accelerated their growing popularity. In 1929 closed-end funds had accounted for over 95 percent of the industry's total assets of about $3 billion. By 1940, the closed-end funds' share of a much smaller pie ($1.1 billion) had declined to 57 percent. In 1943, open-end funds' share of the market exceeded that of closed-end funds for the first time, and their relative share has increased ever since.

During this period, the mutual fund industry took on more of its modern shape. A number of new open-end funds were established, and all of those established during or after 1932 had the attributes we now associate with mutual funds: they eschewed leverage, they stood ready at any time to redeem at a price based on NAV, and they issued only common stock with full voting rights. In fact, some observers contend that the 1940 Act merely set into law the practices that the open-end fund industry had already adopted.[16]

Table 2.1 Summary of Provisions of the Investment Company Act of 1940

Issue or Abuse Targeted by the Act	1940 Act Provisions
Inadequate disclosure to shareholders of the nature of the investment company, its objectives, activities, holdings, or other relevant information	• An investment company must register with the SEC, providing an extensive statement of its policies and structure (§10). It must file annual reports with the SEC (§30), and maintain specified accounts and records (§31).
Investment company management pursuit of their own interests at the expense of shareholder interests	• An investment company's board of directors must include no more than 60 percent of its membership from individuals affiliated with the management company (§10). • The fund must have a written contract, approved by the shareholders, with its investment advisor and principal underwriter (§15). • Persons affiliated with the advisor or other service providers to the fund may not conduct financial transactions with the fund (§17).
Issue of securities that is inequitable for current shareholders or fails to protect their interests	• All shares of stock issued by an investment company must have equal voting rights (§18). Shareholders are entitled to vote on specified provisions, such as changes in investment policy (§13), and appointment of independent auditors (§32).

Table 2.1 *(continued)*

Mismanagement of the investment company or concentration of control via pyramiding or other abuses	• Fund investment in other funds is restricted (§12). [This has since been relaxed.] • Securities must be held in custody by a specified organization, or in accordance with specified procedures (§17). • Officers and employees who have access to cash or securities must be bonded (§17). • Dividends may be paid only from undistributed income, unless a written statement is provided disclosing the source (§19).
Unsound or misleading accounting practices that are not subject to independent review	• The fund's annual reports are required to be audited by independent auditors (§30, supplementing provisions of the 1934 Act).
Restructuring without approval of the shareholders	• Shareholders must vote on any major change in the fund's structure or operations (§several).
Excessive borrowing and issue of senior securities, making the junior securities speculative	• An open-end company is prohibited from issuing senior securities (§18), and investment practices that are equivalent to borrowing are severely limited (§12).
Operation without adequate assets or reserves	• An investment company must have a net worth of $100,000 (§14)

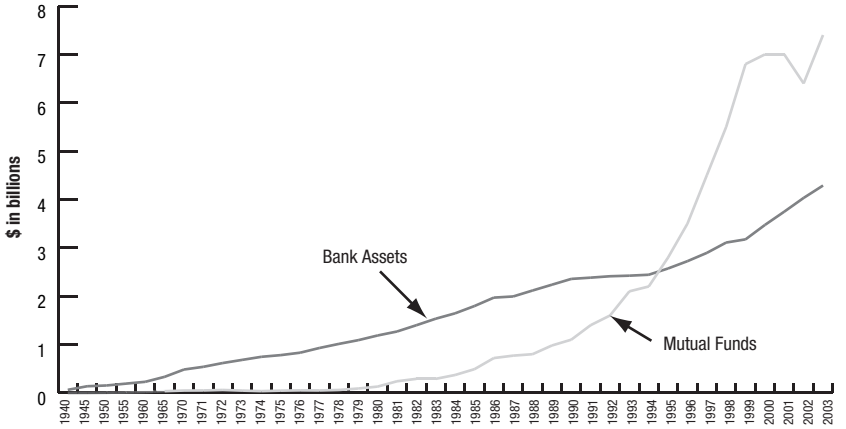
The Slow-but-Steady Growth Years: 1940 to 1980

For the next four decades, the U.S. fund industry grew slowly but steadily, as illustrated in Figure 2.1. Assets under management grew at a rate of about 13 percent per year, fueled both by the appreciation in value of the securities held and by incremental purchases by investors, so-called "new money." The formation of new funds also proceeded at a modest rate. According to ICI data, from 68 funds in 1940, the number increased to 103 in 1951, to 204 in 1967, and was 500 in 1978.

Figure 2.1 also shows the size of fund assets compared to the total deposits in FDIC-insured commercial banks in the United States. The bank deposit total puts the mutual fund figures in perspective relative to the size of the economy. Not only did the funds grow slowly in absolute terms between 1940 and 1970, they also made little headway relative to what Americans put in banks. At around $55 billion in total assets in 1978 (in a U.S. economy whose gross domestic product that year was $2.3 trillion), mutual funds remained distinctly a side show.

Nevertheless, growth had proceeded at a sufficient pace by 1960 to induce Congress to call for new studies of the industry. Three reports prepared or commissioned by the SEC in 1962, 1963, and 1966 raised concern regarding potential conflicts of interest between fund shareholders and fund manage-

Figure 2.1 Assets of mutual funds and bank assets, 1940–2003.



Source: Investment Company Institute (www.ici.org), FDIC

Shapers of the Industry: Jack Dreyfus

Jack Dreyfus is certainly one of the most colorful individuals to grace the halls of mutual fund history. His autobiography[17] starts with a scenario in which an angel attempts to convince Jack's skeptical mother (now in heaven) that her inept, lazy son had in fact become a success along several dimensions. The major part of the autobiography deals not with Wall Street, but with Dreyfus' "second life" during which he led a crusade to convince the medical world of the value of the psychiatric drug Dilantin. But between his unpromising boyhood and his career as medical crusader, Dreyfus did make his fortune on Wall Street and in the process introduced advertising to the mutual fund industry.

In 1952 Dreyfus & Company, a Wall Street brokerage firm, took over management of the Nesbett Fund. Its founder, John Nesbett, had only been able to attract $500,000 in assets after three years of managing it, so the fund did not generate enough revenue for him to make a living. They changed its name to the Dreyfus Fund, and slowly attracted new money. In 1957, Dreyfus decided to stimulate sales and commissioned a television ad for the fund. The ad featured a lion that strolled out of the subway, past a newsstand on Wall Street, and into the Dreyfus office, where it transformed into the Dreyfus Company logo. As Dreyfus put it,

> *The advertisement was a great success. Nobody got tired of the lion, or the music. That was fortunate because we had to run the same ad thousands of time—shortly after it was approved the SEC put restrictions on TV commercials.*

Dreyfus also wrote the fund prospectus himself, drawing a comment from *Barron's* about its pleasantly surprising lack of legalese. In 1958 he published the entire prospectus as a supplement in the Sunday *New York Times.* He then proceeded to use reprints of the supplement as the official prospectus because he could buy them for three cents apiece, which was cheaper than the normal cost of printing the prospectus.

The mutual fund world lost one of its most imaginative figures in 1970, when he retired from management to devote himself ful-time to promoting Dilantin. Dreyfus believed that Dilantin was an under appreciated wonder drug, and he spent the next thirty years of his life sponsoring research and working towards getting the medical establishment to accept it.

ment companies. Industry critics claimed that a fund had no recourse when its advisor charged excessive fees, since the advisor effectively controlled all the fund's options. Of the reports that examined this issue, the one prepared by the Wharton School of Finance and Commerce in 1962 contended that the allegation had merit. These reports prompted Congress to draft the 1970 Amendments to the Investment Company Act of 1940, to tune mutual fund regulation, specifically to increase shareholder protection against excessive management fees.

The 1970 Amendments addressed the imbalance of power between shareholders and the management company by requiring that the independent directors on the fund board be "disinterested," i.e., not connected in any way with the interests of the management company or investment advisor. The amendments also explicitly stated that the investment advisor to a fund has a fiduciary duty in regard to fees and other compensation received from the fund. The 70 Amendments did have the effect of encouraging litigation over fees—in the 1960s, fourteen suits were brought against fund advisors claiming excessive fees; during the period from 1975 through 1985, fifty-four suits were filed. However, very few cases went to trial, and when they did, the court almost always ruled in favor of the advisor, holding that the plaintiff had not met the burden of proof in establishing that fees had been excessive.

In 1979, the SEC adopted rule 12b-1, a rule that has had a significant impact on industry operations. Rule 12b-1 simply stated that it was legal for a fund to use some amount of shareholder assets to finance distribution, so

Shapers of the Industry: Ned Johnson

The Johnson family's pedigree in the mutual fund industry dates from the beginning. Edward C. Johnson, II (Ed) first got into the industry during the 1920s, as general counsel for Incorporated Investors (one of the first open-end fund companies), and later became a senior executive of the management company. In 1943 Johnson took control of a small, troubled fund known as the Fidelity Fund. In 1946 he incorporated his own firm to manage it: Fidelity Management and Research (FMR). For the next 30-plus years Ed Johnson built FMR until by 1970 the Fidelity funds it managed accounted for almost 10 percent of industry assets.

In 1957, Ed's son Edward C. Johnson, III (Ned) joined FMR as an assistant vice president and stock analyst. In 1961, Ned Johnson began managing the Fidelity Trend

Fund, and outperformed all his growth fund competition for the next four years. His role in FMR expanded steadily, until in 1972, with 14 funds in the Fidelity complex, he took over control of the management company from his father. During Ned Johnson's tenure the Fidelity funds grew to be the colossus of the industry. By the late 1990s every fourth or fifth dollar flowing into U.S. stock funds was flowing into a Fidelity fund. At the end of 1999, the Fidelity open-end funds totaled $800 billion in assets, about 13 percent of U.S. open-end fund assets.

Ned Johnson, more than any other single individual, can be credited with the transformation of the U.S. mutual fund from a service to a product. During the 1970s and 1980s the management team he assembled at Fidelity either pioneered or popularized a long list of new features and services, such as check writing against money market funds, superior telephone customer service, and enhanced reporting. The Fidelity family grew to include a fund for every investing fancy: sector funds, high-yield bond funds, tax-exempt funds, international funds—you name it. Fidelity's advertising emphasized the Fidelity brand, much as consumer product firms used branding to sell shoes or soap. While many fund complexes today do most or all of these same things, it was Fidelity under Ned Johnson that led them to it. As one Fidelity executive put it, "If Ned thought it would sell, he would do it."[18] In recognition of the revolutionizing effect Johnson had on the industry, in 1999 the *Los Angeles Times* made Johnson the only mutual fund executive on its list of individuals who have had the most effect on business in the twentieth century.[19] Johnson was number 45 on the list, between Rachel Carson (44) and Milton Friedman (46).

Fidelity may well remain under Johnson family management for a third generation. In 1988, Abigail Pierrepont Johnson joined FMR as a stock analyst. She became a member of the FMR board in 1994, and in 1996 took over management of the Fidelity Trend Fund, the fund her father had first managed in the 1960s. By the early 2000s her place in the succession had become clear with her accession to the presidency of Fidelity's fund management unit.

long as a number of specified conditions were met. Heretofore, all distribution expenses (advertising, sales commissions, and any other marketing expense) were paid by the distributor from fees collected from investors and the management company out of the fee the fund paid for administrative and advisory services. The various avenues of distribution that rule 12b-1 helped open up are discussed in more detail in Chapter 8.

The Modern Industry Takes Off: Explosive Growth in the '80s and '90s

Figure 2.1 shows the dramatic acceleration of growth in the mutual fund industry that started in the early 1980s and continued through 2000. The late 1970s and early 1980s also saw a change in the nature of funds, as shown in Figure 2.2. Until the mid-1970s, mutual funds were primarily seen as a way for the modest investor to get the aid of professional management for participating in the stock market. Some funds were balanced between stocks and bonds, and

Shapers of the Industry: John Bogle

John Bogle has led a life-long crusade as an advocate for the investor by fighting against excessive cost in asset management that erodes investors' returns. As the second-largest fund complex in the industry, The Vanguard Group stands as a monument to his determination.

Bogle joined the industry early in his career. His senior thesis at Princeton covered the mutual fund industry and attracted the attention of Wellington Management executives, who interviewed and hired him in 1951. Over the next 20 years he worked his way up to the top at Wellington, becoming CEO in 1967. But he never came to terms with a group of partners that Wellington had acquired in 1966, and in early 1974 they maneuvered the Wellington board into calling for his resignation.

Bogle refused to go quietly, and instead struck a compromise with the independent directors of the Wellington funds. It gave him a new organization to handle fund administration, while Wellington Management retained the investment advisory and distribution roles. He named the organization The Vanguard Group, Inc., after Lord Nelson's flagship at the Battle of the Nile. (This nautical theme continues to pervade Vanguard today, as any visitor to its Malvern, Pennslyvania campus will readily see.) With Vanguard, Bogle did something that he had suggested at Wellington but could never get approved—he organized it as a mutual company, owned by the funds themselves. He believed that this type of organization would minimize the cost to the funds (and therefore to the investors) because it removed the need to provide a profit.

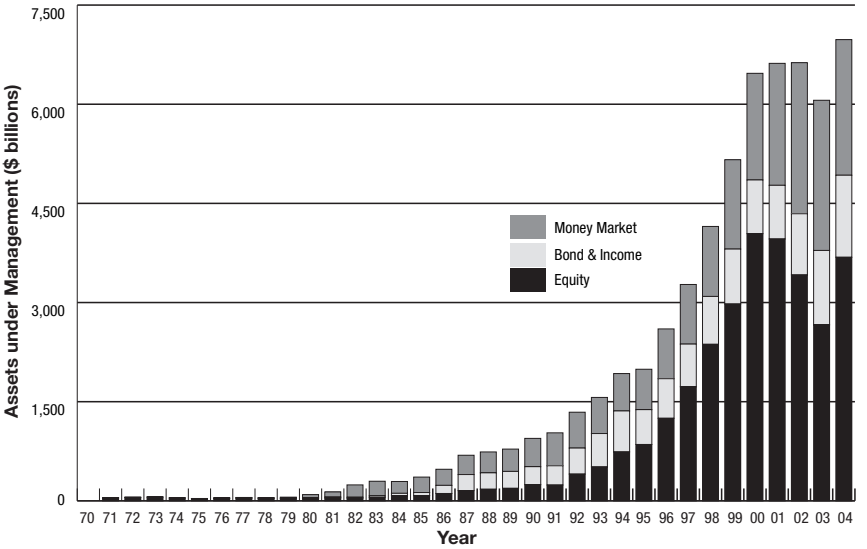
In 1979 Bogle got approval from the SEC to use fund assets to pay for distribution. Heretofore distribution costs had always been paid by the advisory firm, out of its fee. Bogle believed that this practice tied the fund to the advisor, since breaking the advisory contract would leave the fund with no means of distribution. If the funds could pay for their own distribution, they could lower their costs by shopping around for the best deals in advisory services. Ironically, shortly after Bogle won his three-year battle for SEC approval of his proposal, the SEC issued Rule 12b-1, which allowed anyone to use fund assets to pay for distribution.

Bogle has also been the mutual fund industry's most vocal and persistent advocate of indexing passive management, forming the world's first index mutual fund in 1975. In his books and countless articles, speeches, and appearances, he has argued that most active management costs the investor more money over the long term than it returns in increased performance. His ideas, which were widely rejected in the 1970s, have been vindicated in recent years by the phenomenal success of the Vanguard indexed funds.

Throughout his career, Bogle has battled heart problems that have required medication, pacemakers, and in 1996, a heart transplant. Although retired from active management of The Vanguard Group, Bogle has returned after his transplant to carry on as a passionate spokesman for the ideas that he has advocated for the past 54 years. His fifth book *The Battle for the Soul of Capitalism* will be published in Septermber 2005.

there were a few bond funds, but by and large mutual fund meant stock fund. Few industry statistics gathered before the 1970s even differentiate between types of funds.

Figure 2.2 Breakdown of fund assets by fund type, 1970–2004.



Source: 2004 Mutual Fund Fact Book, Investment Company Institute (www.ici.org)

In the late 1970s, a number of economic factors drove interest rates up to unprecedented levels. Between late 1978 and late 1982, the Fed Funds rate was usually in double digits, and once even topped 20 percent. At the same time, banking regulations (specifically Regulation Q of the Federal Reserve Act) capped the interest that a bank could pay on deposit accounts, the traditional savings vehicle for individuals of modest means. This spread opened a gap for money market mutual funds, and innovators in the industry were quick to drive through it.

Money market mutual funds gave small investors access to high-yielding short-term instruments that were generally beyond their means to buy individually. In 1970 the Federal Reserve removed interest rate restrictions on certificates of deposit greater than $100,000, but few Americans could afford to invest that amount. Money market mutual funds, which invest in high-quality, short-term instruments, could trade in such large denominations. As a result, investors could move their money from bank deposits (that earned less than five percent) to money market mutual funds (which at that time provided double-digit yields). In return, they gave up the protection of FDIC deposit insurance on their assets. James Benham, a money market fund pioneer, explained the lure:

> *In 1970, when I conceived the idea for Capital Preservation Fund, the open market rate was eight percent on T-bills, and you could only earn five percent on a passbook savings account. There was a differential of three full percentage points available for those who could capture it. Well, the little people couldn't capture it. The average balance in a passbook*

> *account in those days was something like $2,700 and they raised the minimum on T-bills in January 1970 from $1,000 to $10,000. With a fund, you could let people in for $1,000.*[20]

In the 1970s investors began to take this option in droves: Between 1974 and 1982 the total assets held by money market funds grew by two orders of magnitude, from less than $2 billion to over $200 billion. In 1982, three-fourths of the mutual fund industry's assets were in money market funds. That year Congress removed the banks' regulatory handicap with an act that enabled banks to offer deposit accounts (negotiable order of withdrawal, or NOW accounts) that paid interest rates similar to those of money market funds. This slowed the large-scale flow of money from banks to mutual funds, but little money flowed back to the banks. Investors had tried mutual funds and liked what they found.

The brief money market boom had an important effect in bringing investors into the world of mutual funds. The prolonged bear market of the 1970s had caused industry assets to shrink, and the number of shareholder accounts to decline, from almost 11 million in 1971 to 8.5 million in 1978. Starting in

Shapers of the Industry: Peter Lynch

From Michael Jordan pushing Nike to Geraldine Ferraro pushing Coke, from John Housman pitching E.F. Hutton to Jimmy Dean pitching sausage, American consumer marketing has always loved the celebrity endorsement. For the mutual fund industry, the celebrity delivering the endorsements has been Peter Lynch.

Lynch surely has earned his celebrity status. Between 1977 and 1990 he managed the Fidelity Magellan Fund to become the industry's largest. When he took it over, it held less than $26 million; when he relinquished its management in 1990, it held assets valued at $14 billion. Throughout the period, Lynch's annual performance regularly beat the fund's benchmark, the S&P 500 Index, often by over 20 percent.

This performance not only attracted investors, it attracted media attention. He appeared on television and on the covers of magazines. He wrote two best-selling books. Financial writers quoted him widely. His obvious love for what he did and his folksy good humor made him a natural. His approach to stock picking, on which he expounded regularly, was commonsensical and appealing (keep it simple; focus on what you understand to be good).

Lynch retired in 1990 from his all-consuming job as manager of the Magellan Fund to spend more time with his family. He was too valuable an asset for Fidelity to allow to lay fallow, however: a few years later they induced him to return to a part-time position in the firm. Since his return he has appeared in Fidelity advertising in all media, and one can hardly open a financial magazine, walk through an airport, or even drive down the highway without seeing Peter Lynch, the mutual fund industry's leading celebrity, smiling from one or more advertisements.

1979, the rapid growth of the money market funds boosted the shareholder account total to over 21 million in 1983. Then, when growth in money market funds slowed, the bull market of the 1980s made long-term funds attractive again, and growth resumed across the board.

The figures in Table 2.2 illustrate the growth of the industry since 1980. Total assets, assets in each fund category, the number of funds, and the num-

Table 2.2 U.S. Mutual Fund Statistics (all figures as of year-end)

	Assets Under Management ($ billions)					
Year	Total	Equity Funds*	Bond Funds	Money Market Funds	# of Funds	# of Shareholder Accounts
1981	241	41	14	186	665	17,499,400
1982	297	54	23	220	857	21,449,000
1983	293	77	37	179	1,026	24,605,000
1984	371	80	46	234	1,243	27,736,000
1985	495	111	123	244	1,528	34,098,000
1986	716	154	243	292	1,835	45,374,000
1987	769	175	248	316	2,312	53,717,000
1988	809	189	256	338	2,737	54,056,000
1989	981	245	272	428	2,935	57,569,000
1990	1,065	239	291	498	3,079	61,948,000
1991	1,393	405	394	542	3,403	68,332,000
1992	1,643	514	504	546	3,824	79,931,000
1993	2,070	741	619	565	4,534	93,214,000
1994	2,155	853	527	611	5,325	114,383,000
1995	2,811	1,249	599	753	5,725	131,219,500
1996	3,526	1,729	645	902	6,248	150,042,000
1997	4,468	2,368	724	1,059	6,684	170,264,000
1998	5,525	2,978	831	1,352	7,314	194,074,000
1999	6,846	4,042	812	1,613	7,791	226,415,000
2000	6,695	3,967	811	1,845	8,155	244,768,000
2001	6,975	3,408	925	2,285	8,305	248,804,000
2002	6,390	2,663	1,125	2,272	8,244	251,224,000
2003	7,414	3,685	1,241	2,052	8,126	260,650,000

Source: 2004 Mutual Fund Fact Book, Investment Company Institute (www.ici.org)

*For the years 1984 on, this figure includes funds categorized as either equity or hybrid funds, to be consistent with the categorization scheme used earlier.

ber of shareholder accounts have all grown at compound annual growth rates (CAGR) in double digits. Some of the growth in assets results from appreciation in securities prices, but much of it reflects new money flowing into the funds. This raises the question: where did all this money come from? Economists studying the industry have concluded that it mostly came from investors reallocating their portfolio of investments from other vehicles to mutual funds.[21] Several factors played a role in inducing this shift.

Retirement Savings

Much of the flow of money into mutual funds in this period resulted from Americans' increasing tendency to use funds for retirement savings. In the late 80s, the vanguard of the baby boom generation turned 40, and for many boomers the question of retirement financing took on immediate and personal interest. Two acts of the federal government served both to spur retirement savings and to help channel much of it into mutual funds.

The Employee Retirement Income Security Act (ERISA) of 1974 attempted to reform pension practices in the United States by mandating that employees be vested in their pensions within 10 years, and that the employees be able to retain their pension rights as they move from one employer to another. These requirements, coupled with a mobile United States workforce whose longevity was increasing, made many employers choose to provide defined contribution rather than the traditional defined benefit plans (this is discussed in more detail in Chapter 10). Over the course of the late 1980s and into the 1990s, these defined contribution pension plans turned more and more to mutual funds to provide the investment vehicles for their participants' contributions. In 1998, employer-sponsored plans accounted for 10 percent of the net cash flow into U.S. mutual funds.

The Tax Reform Act of 1981 allowed each American with earned income to set up an individual retirement account (IRA), and, in many cases, fund an annual contribution to it with pre-tax money. IRAs have also provided a significant flow of net new money into mutual funds. This flow was strong in the years leading up to 1986, weaker after 1986 when the Tax Reform Act restricted the tax benefits of IRAs, and has strengthened again in the wake of 1997 legislation liberalizing IRA provisions. As of the end of 1999, 38 percent of mutual fund assets represented retirement savings, about evenly split between IRAs and employer-sponsored defined contribution plans.

New Distribution Channels

Until the late 1970s, mutual funds came in one of two types: load funds, sold by broker dealers who received a commission on the transaction, and no-load

Shapers of the Industry: Charles Schwab

Charles Schwab, "Chuck" to his friends and employees, has never shied away from eccentric ideas. As a student, he proposed such innovations as drive-through animal parks and rock and classical music rodeos. As a businessman, he pioneered the discount brokerage business when no one thought it would work. And as a successful CEO, he sponsored an innovation that has had enormous impact in mutual fund distribution: the fund supermarket.

Schwab founded his firm in 1971 as a traditional brokerage, but soon saw that the SEC's decision to end fixed stock commissions created an opportunity to exploit a discontinuity in the economic landscape. The old commission structure had left an entire market segment unserved—that of independent-minded investors who needed transaction execution but not advice. Schwab quickly transformed his firm into a discount brokerage that served this group of investors. By 1993 the success of this approach had made Schwab a member of the *Forbes* list of the 400 richest people in America.

In the early 1990s, as America was falling in love with mutual funds, Schwab and his team of executives saw another opportunity to exploit a niche that no one yet occupied: super-distributor of no-load funds. He sent his executives around to the no-load fund complexes with a proposition: for a small fee tagged to the size of investor assets the program brought to the fund, Schwab would sell the complex's funds and handle shareholder record keeping. This gave investors one point at which they could buy, sell, and exchange funds from multiple families, with no transaction fees to pay. It allowed the funds to enter a new distribution channel with no large fixed outlay of money. The smaller fund groups, for which the expense of retail distribution was daunting, found this particularly attractive. So in 1992, Schwab launched OneSource with 86 funds from eight fund complexes.

OneSource was immediately successful, as many investors found that this approach was exactly how they wanted to deal with mutual funds. Shareholder dollars attracted new funds to the program, which attracted more shareholders, in an ever-increasing spiral. By May 2004, Schwab's mutual fund market included over 1,000 funds, and had also attracted the ultimate, if unwanted, compliment: a dozen or more competitors had imitated it, and started their own mutual fund supermarkets.

Charles Schwab learned while working with his eight-year-old son's school psychologist that he, like his son, was dyslexic. Suddenly, he said, all his struggles with reading and spelling made sense. But this cloud had an exceptional silver lining. Schwab attributes much of his success as an innovator to his particular and unconventional learning style and the vision it allows him.

funds, sold directly to the public by the management company. In 1979, rule 12b-1 allowed funds for the first time to pay for distribution directly out of fund assets. This opened the door for new distribution channels, and the growing size and profitability of the industry encouraged innovators to develop them. In the 1980s and 1990s, several emerged as important supplements to

the traditional channels. These new distribution channels, discussed in detail in later chapters, include mutual fund supermarkets, wrap programs, financial advisors, banks, and, most recently, the Internet.

Product Development

In its 1997 report on money management in America, Bernstein Research pointed out that mutual funds had evolved over the previous 15 years from being a service to being a product.[22] Until the late 1970s, an investor buying mutual fund shares bought professional management to help produce income and/or capital appreciation—period. During the 1980s and 1990s, competition drove fund management companies to turn their offerings into products along several dimensions. First, they tremendously diversified the types of funds available to more closely fit the objectives of the investor. From the five categories of funds tracked by the ICI in 1970, there are now 33 categories tracked (discussed in Chapter 4). Second, they developed a wide range of features and services for fund shareholders: check writing, electronic funds transfers, automatic investment or redemption plans, automatic investment reallocation plans, and tax cost reporting, to name a few. Finally, the management companies turned increasingly to the same marketing techniques, such as advertising and branding, that corporate America used to sell cars, soap, and other consumer products.

According to ICI data, the result has been to entrench mutual funds firmly in the American financial services landscape—from 1980, when 1 in 20 U.S. households owned mutual fund shares, the industry grew until over 1 in 2 was a mutual fund shareholder in 2000.

The Early Twenty-First Century

With the dawn of a new century, everything looked bright for the U.S. economy, investors, and the mutual fund industry. At the beginning of the year 2000, there were more mutual funds, more shareholder accounts invested in mutual funds, and more total net assets invested in mutual funds than ever before. "Irrational exuberance" had not yet overtaken securities markets, the devastating attacks of September 11, 2001, and the war on terrorism were ahead, as were corporate scandals such as Enron, WorldCom, and HealthSouth. The scandals concerning investment banks and their analysts had not yet affected investors' trust in corporate America and the securities markets. As a result of these developments, total net assets of mutual funds declined from $6.8 trillion at the beginning of 2000 to $6.4 trillion at the end of 2002, all while the number of mutual funds and the number of shareholder accounts invested in mutual funds continued to grow. Investors continued to put their faith in mutual funds even when the securities markets had become more volatile resulting in lackluster

investment performance by the mutual fund industry. The year 2003 produced revelations about greed within the mutual fund industry that produced allegations of abusive market timing and late trading scandals, and new regulations to protect investors by improving fund governance and ethics and to provide for better transparency. This includes covering how management companies address conflicts of interest, protect long-term fund investors against abusive market timing, and value funds' securities to determine the daily net asset value and price per share for fund share transactions.

How will the mutual fund industry address the challenges that have developed in the early years of the twenty-first century and address the needs of Americans to invest for their retirement and the education of their children? These areas represent opportunities for the American mutual fund industry to innovate and evolve so that it will be as successful in the future as it was in the twentieth century.

American Funds and the Lovelace Family

In 2004, after the burst of the technology bubble in 2000 and the wave of scandals that slammed the mutual fund industry, American Funds is drawing increased attention although it has delivered consistent investment performance over many decades.

New York Attorney General Eliot Spitzer's mutual fund investigation, which was launched in 2003 and scarred the reputations of late 1990s highfliers, so far has only grazed American Funds. Now with investors nervous about the market's short-term prospects, a company that stays away from trendy investments and emphasizes the long term is looking pretty good.

With $568 billion under management, American Funds is gaining on the two largest fund families, Vanguard and Fidelity Funds.

American Funds follows a steadfastly conservative strategy that costs it dearly in boom times but gives its tortoise-versus-hare advantage in other times. It does no mass media advertising, instead paying brokerage firms to sell its funds. It stays away from flavor-of-the-month investment strategies such as commodity funds or funds guaranteed to give investors their money back.

American offers 26 stock and bond funds. Unlike its rivals, which tend to roll out several new funds a year, it hasn't launched a new fund since 1999.

"Keeping a culture going over the generations is a staggeringly large job…. and I salute them for it," says John Bogle, the Vanguard Group's founder. "They focus on money management rather than marketing and on stewardship rather than salesmanship."

In 1929, Jonathan Bell Lovelace, considered a pioneer in the field of fundamental stock research, was working at a Detroit brokerage firm. Worried that the market was heading for trouble, he tried in vain to persuade his partners to pull out. Instead, he took his own advice that August, liquidating much of his own stock holdings and

moving to California just months before the October crash. Two years later, he founded Capital Research & Management, a unit of Capital Group Companies that today runs American Funds. From the start, he instilled the enterprise with a risk-averse vision that guides it today.

Part of that vision involves spreading around ownership of the company. In 1950, Mr. Lovelace begain selling off pieces of this empire, transferring 40 percent to firm executives. "We've always had the philosophy that those making major contributions to the company should own it," says Jon Lovelace Jr., who took the reins in 1964 and retired as non-executive chairman in 2000. The Capital Group has nearly 380 stockholders and the family's stake is in the "low double digits".

The elder Mr. Lovelace also instituted a system to make sure that no one manager would put too strong a stamp on a fund. At most companies, each fund is managed by one or two people or by a team working in concert. When a hunch is right, there's a big payoff. The Lovelaces cared little for short-term gains. In 1958, Jon Lovelace Jr., cutting his teeth as a fund manager, designed a hybrid system that remains in effect today. Each fund is divided into slices with a single "counselor" running each slice as he sees fit with the fund's guidelines. It is believed to help smooth out the tops and bottoms of the volatility and helps manage growth. When new money comes in, a manager can be added without overwhelming the others. While other funds have been forced to change their investment strategy when too much money pours in at once, the investment slice system has allowed the company to remain on an even keel amid its recent growth spurt.

Today, Robert Lovelace is part of a third generation, leaving his mark on the firm. In 2001, he got a slice of the New Perspective global stock fund.

Capital Group's culture shuns perks. There are no corner offices and all offices are similar in size. Such frugality helps the firm maintain its below-average fees. Counselors stay out of the limelight. Once a year, some of them talk with financial advisors to explain the unusual investment process and their market views.

Like every other broker-sold fund family, American Funds' sales arm cuts deals to give brokerage firms a percentage of what they bring in—payments on top of commissions paid by customers. The extra money compensates sellers for printing pamphlets, holding seminars, and other marketing efforts. But brokerage firms would also require these extra payments for putting funds on their most-favored lists. As the country's biggest broker-sold fund firm, American Funds is aggressive in negotiationg such deals.

American Funds conservative approach looks best when the market is at its worst. It weathered the 1970s bear market well enough to acquire several funds in 1975 and fared better in the 1987 crash than many other companies. American Funds opened only one fund during the 1990s bubble and it focused on a then-out-of-favor corner of the market: stocks from emerging-market countries. "We have never believed that you just create what will sell," explains James Rothenberg, president of Capital Research & Management.

Source: Tom Lauricella, "Slow and Steady," *Wall Street Journal,* page A1, November 15, 2004

chapter 3 | Overview of Industry Structure

The typical open-end mutual fund has very limited internal resources, contracting out almost all of its activities. Thus an open-end mutual fund can be seen as a set of contracts between the trustees and other organizations which provide specialized services.

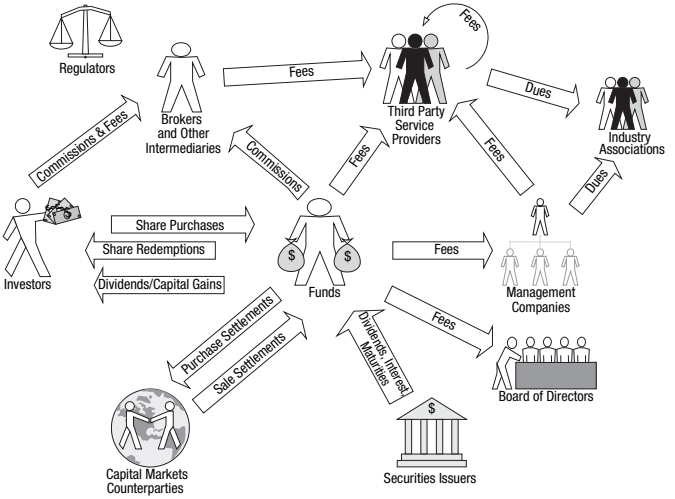
—Peter Fortune[1]

The mutual fund industry includes not only 90-million-plus individual and institutional investors who supply capital to be invested and 8,000 funds that invest it, but also thousands of other organizations.[2] Most of these organizations provide required services—investment advice, distribution, customer service, custody, auditing, consulting, legal representation, securities prices and other information, and the like—to either investors or funds. Some are subcontractors, providing services to other service organizations. Some regulate the activities of the funds and their service providers. Finally, the funds and service providers have organized themselves into industry associations that educate and represent their membership. Collectively, these organizations make up the mutual fund industry.

Most of the organizations that comprise the industry are covered in detail in the chapters that describe the services they provide. This chapter sets the context for those more detailed discussions. It covers the funds themselves, and briefly identifies what the other entities in the industry do, how they relate to the fund, and, when available, the magnitude of their participation in industry revenues.

Figure 3.1 shows these major groups of players and the flows of money that connect them. Investors supply the money that drives the entire industry when they purchase mutual fund shares. The funds use most of this money to purchase securities in accordance with the stated investment objectives. As the funds purchase and sell securities, they exchange money in the capital markets with counterparties—i.e., the organizations

Figure 3.1 Major entities and money flows in the U.S. mutual fund industry.



from which they purchase securities, and to which they sell them. The issuers of these securities send money to the funds when they pay dividends or interest and when certain types of securities mature. Investors remove money from the funds when they redeem shares, and when they elect to take dividend and capital gains distributions from the funds in the form of cash.

The growth of the industry—measured by the value of assets under management—is fueled by three sources. First, to the extent that investors purchase more than they redeem, they provide a net inflow of funds. In fact, investors have done exactly that for 18 of the last 20 years through 2003 (1988 saw a net negative flow of $23 billion and 2003 saw a net negative flow of $42 billion).[3] Second, many of the securities the funds hold appreciate in value, providing unrealized capital gains, or market appreciation. As Table 3.1 shows, during 2003, the increase in the value of mutual fund assets (from $6.4 trillion to slightly over $7.4 trillion) stemmed entirely from market appreciation. Finally, the fixed-income securities held by the funds pay interest income, some of the equity securities pay dividends, and the funds realize net capital gains when they sell securities. The funds distribute almost all of these to the shareholders, to avoid having them taxed at the fund level. While shareholders historically have taken about one-third of these dividends and gains distributions in cash, they return two-thirds to the funds in the form of reinvestments. Recently, it appears that even a higher percentage is returned to the funds in the form of reinvestments. This is likely attributable to those shareholders who are investing for retirement.

Most of this increase in the value accrues to the fund shareholders. Some of it, however, is used to generate revenue for those organizations that provide service for the funds.

- *Management companies* receive fees for the fund administration, investment advisory, distribution, customer servicing, and other services that they provide.
- *Directors* are compensated by the funds for their services in looking after the interests of the shareholders.
- *Third-party service providers* of many sorts receive fees, either directly from the funds or indirectly through the management companies.
- *Brokers and other financial intermediaries* receive fees in several different ways. They may be compensated for the activities they carry out in distributing the funds to investors, either directly by the investors or indirectly by the funds. The funds also employ intermediaries to execute securities trades, for which they are compensated with commissions or spreads.
- *Industry associations* receive membership fees, or dues, from the funds or management companies.

Table 3.1 Change in Asset Value of U.S. Mutual Funds in 2003 ($ billions)

Value of Assets as of January 1, 2003		$6,390
Net of Purchases and Sales by Investors in 2003		
Equity Funds	$152	
Hybrid Funds	$33	
Bond Funds	$31	
Money Market Funds	($258)	
Total Net Purchases		($42)
Fee and Expense Outflows (estimated)		
Service Fees	($30)	
Distribution Charges	($17)	
Portfolio Transactions	($28)	
Total Fee and Expense Outflows		($75)
Dividends, Interest, and Net Capital Gains		
Earned on Investments	$1,241	
Paid in Cash to Investors	($100)	
Net Appreciation		$1,141
Value of Assets as of December 31, 2003		$7,414

Source: Investment Company Institute (www.ici.org), Strategic Insight Simfund, calculations explained within the chapter

Many of these service providers pay fees in turn to organizations that provide service to them, for example, when fund accounting organizations pay information vendors for transmissions of securities prices.

One group in Figure 3.1 is not connected to the funds by money flows, at least not directly. The regulators, primarily the Securities and Exchange Commission (SEC) and the National Association of Securities Dealers (NASD), are funded in other ways. The SEC's funding derives from the general appropriations of the federal government. Member firms fund NASD, but the funding is unrelated to any particular segment of the securities industry in which firms participate.

The Funds

At the heart of the industry are the 8,000 mutual funds, or investment companies, each of which is a separate portfolio of securities. An investment company can organize under the laws of any state, and may be a corporation, business trust, or limited partnership. Most mutual funds have been set up as either Massachusetts business trusts or Maryland corporations. These particular choices stem from convenience—in the past the requirements for obtaining shareholder approvals or holding shareholder meetings imposed by these two forms have not added significantly to the governance requirements already imposed by the 1940 Act.[4]

Other states have changed their laws to offer similar flexibility to accommodate mutual funds. Delaware, for example, has adopted a business trust statute more attractive along some dimensions than that of Massachusetts. In 1998, The Vanguard Group called a shareholder meeting to get approval to convert all the funds from their current organization as Maryland corporations to that of Delaware trusts. Vanguard calculated that this would result in savings of $18 million per year, primarily in state taxes.[5]

The 1940 Act imposes a number of very specific requirements for any open-end investment company offered to the general public in the United States.

- It must register pursuant to the Securities Act of 1933, and provide notice filings for those states in which it intends to sell shares.
- Its name must be consistent with its investment objective.
- It must declare its investment objective and how it will pursue that objective, and then operate accordingly.
- It must prepare a prospectus and statement of additional information (these are discussed in Chapter 4) to inform potential investors of every relevant aspect of its operation.
- It can issue only one class of stock, every share of which must have equal voting rights, and each of which must be redeemable upon demand

What's In a Name?

Perhaps a rose would smell just as sweet with another name, but the SEC won't tolerate anything but precision when it comes to the names applied to mutual funds. Section 35(d) of the 1940 Act provides that a fund cannot use a name that may be deceptive or misleading. In interpreting this section, the SEC has laid down a number of specific rules. For example:

If the fund's name…	Then the fund *must*…
…contains "Tax-Exempt" or "Tax-Free"	…hold mostly tax-exempt securities. Specifically, it must get 80% of its income from and have 80% of its holdings in tax-exempt securities.
…represents it as "balanced"	…hold a mix of equities and fixed-income assets. Specifically, it must have at least 25% of its assets in fixed-income senior securities.
…implies that it will invest in a particular type of securities	…do so. Specifically, it must keep 80% of its assets invested in the indicated type of securities.
…says it's a money market fund	…limit its risk as appropriate to a money market fund. Specifically, it must comply with all the provisions of Rule 2a-7 concerning maturity, quality, and diversification.
…says it specializes in a particular country	…actually specialize in that country. Specifically, 80% of its assets must be securities tied economically to that country.
…characterizes the fund's maturity (e.g., as short-term, long-term, etc.)	…maintain a dollar weighted average portfolio maturity as prescribed. The SEC prescribes the acceptable maturity limits for each term (e.g., short-term means no more than three years).

although multiple share classes may be used to distinguish among shareholders based on the level of expenses to service them and for paying for distribution-related services provided to them.

- It must establish a board of directors or trustees, approved by vote of the shareholders. A specified percentage of the directors or trustees must be independent—i.e., unaffiliated with the fund's management company.
- It may not issue debt securities. It may borrow up to five percent of total assets temporarily (defined as less than 60 days) without the transaction being reqarded as a senior security.
- It must have a net worth of at least $100,000 in assets before offering shares to the public.
- It must execute agreements, subject to approval of the directors (and, in some cases, the shareholders) for investment advisory, distribution, custody, audit, shareholder service, and other services.

- It must calculate its net asset per share value daily to be ready to redeem shares.
- It must report to regulators and shareholders in accordance with regulations, and submit these reports to the SEC for review.

Fund Directors

Mutual funds organized as corporations have directors; those organized as business trusts have trustees. In practice, they do exactly the same thing, and people in the industry use the two terms synonymously. A fund's board of directors or trustees is subject to the same laws as that of any other corporation or trust, as well as to additional requirements laid down by the 1940 Act. Table 3.2 summarizes the duties of a mutual fund director or trustee, highlighting those duties unique to mutual fund directors.

A fund's directors are intended to be fiduciaries, ensuring that the fund's service providers, particularly the management company, act in the best interest of the shareholder. Recognizing that directors affiliated with the management company have a built-in conflict of interest, the 1940 Act required that at least 40 percent of the board consist of "independent" directors—defined to exclude affiliates of the management company, investment advisor, principal distributor, legal counsel, or any member of a broker dealer. The Investment Company Amendments Act of 1970 strengthened this independence. It created a category called "disinterested" director, provided a set of rules defining the disinterested director, and required a separate majority vote of disinterested directors for provisions such as approval of advisory contracts and distribution agreements. In 2004, the Securities and Exchange Commission amended its rules to require mutual funds that rely on exemptive provisions of the Commission's rules to have 75 percent of the directors to be independent and that the Chair of the board also be an independent director.

The U.S. Supreme Court has clearly confirmed the role of the independent or disinterested fund directors:

> *Congress' purpose in structuring the Act as it did is clear. It "was designed to place the unaffiliated directors in the role of 'independent watchdogs'" who would furnish an independent check upon the management of investment companies . . . In short, the structure and purpose of the [Investment Company Act] indicate that Congress entrusted to the independent directors of investment companies, exercising the authority granted to them by state law, the primary responsibility for looking after the interests of the funds' shareholders.*[6]

Some industry critics do not believe that boards are truly independent and concerned with the shareholder's interest. Legendary investor Warren Buf-

Table 3.2 Duties of Directors or Trustees

Description of Duty	Corporate Director	Fund Director
Authorize issuance of securities	x	x
Declare dividends	x	x
Elect officers	x	x
Appoint committees	x	x
Serve on committees:		
Audit committee	x	x
Nominating committee	x	x
Call shareholder meetings	x	x
Adopt and amend bylaws, if necessary	x	x
Select PCAOB registered accountants	x	x
Approve mergers or other transactions	x	x
Review registration statement (including prospectus)	x	x
Review proxy statements	x	x
Review financial reports	x	x
Handle extraordinary situations:		
Takeovers	x	x
Regulatory problems	x	x
Approve investment advisory and subadvisory contracts		x
Approve underwriting or distribution contract		x
Approve service contracts:		
Transfer agent		x
Custodian		x
Handle disputes or claims arising under the company's contracts with service providers		x
Approve foreign custodian arrangements		x
Approve and provide oversight governing compliance policies and procedures with applicable federal securities laws		x

Source: Investment Company Institute (www.ici.org) and Investment Company Act of 1940 Rule 38a-1.

fett, for example, has likened fund directors to Cocker Spaniels in a watchdog-situation that called for Dobermans, implying that the management companies populate the boards with individuals who will comply with their wishes.[7]

More recently after the revelations about market timing abuses in the industry during 2003 Buffet said, "The reality is that neither the decades-old

rules regarding investment company directors nor the new rules bearing down on corporate America foster the election of truly independent directors. In both instances, an individual who is receiving 100% of his income from directors' fees—and who may wish to enhance his income through election to other boards is deemed independent. That is nonsense." Mr Buffet then comments, "A great many funds have been run well and conscientiously despite the opportunities for malfeasance that exist. The shareholders of these funds have benefited, and their managers have earned their pay."[8]

In an address at the 2004 Mutual Funds Directors Forum Annual Policy Conference on January 7, 2004, in Washington, D.C., SEC Chairman Donaldson spoke candidly to fund directors:

> *While your role is one of oversight and not full-time, day-to-day management of the fund's operations, you must test those to whom you have entrusted that role. You must demand accountability from those to whom you have delegated, ensuring that they understand that you can relieve them of their duties if they are not performing to your satisfaction. You have the power as fund directors to insist on a culture of compliance and we are endeavoring to provide you new tools in this area. You must wield your power appropriately to ensure that the interests of your fund investors are protected and that their interests come first.*

Boards of directors or trustees come in various sizes (the regulations are silent on this point). The typical board may have between six and twelve members. They are often organized for an entire series of funds, rather than for individual funds, with a single board for all members of a fund family. Many directors, therefore, prepare for and attend dozens of meetings each year.[9] Funds compensate their directors for exercising these duties. Director compensation ranges widely, with the highest-paid directors receiving over $200,000 per year. In an article in early 2004, *Forbes* found that directors' compensation at several prominent fund companies averaged between $139,000 and $285,000 per year.[10] A fund's Statement of Additional Information (SAI) must disclose the amounts paid to directors by the individual fund and the fund complex as a whole. Strategic Insight data indicates that directors' fees totaled slightly over $100 million for the industry in 2003.

The Management Companies

Most funds do not stand alone, but rather form part of a family of funds that have been organized by and receive a common set of services from an organization that specializes in running mutual funds—a management company.

The management company (which itself may be divided into several separate legal entities, each performing a different function) and the group of funds it controls are often known as a fund complex. As Chapter 1 mentioned, management companies can have a variety of organizational forms as privately or publicly held corporations, or subsidiaries of other organizations.

In late 2004, Strategic Insight data indicated that almost 600 separate organizations managed open-end fund families with total assets ranging from as low as a few million dollars to over $800 billion. After a period in the 1980s and 1990s during which many firms entered the industry, the number of managers had begun to stabilize in the early 2000s, with relatively few new firms entering since 2001. Table 3.3 from Financial Research Corporation (FRC) shows a breakdown of management companies by size of the assets managed within their fund complexes as of December 2003.

Table 3.3 clearly shows that the industry is characterized by a large number of small management companies (495 companies each managed under $10 billion in late 2003), along with a relatively small number of very large companies. For example, at the end of 2003, the ten largest fund complexes (Fidelity Funds, Vanguard Funds, American Funds, Merrill Lynch Funds, Franklin Templeton Funds, Federated Funds, PIMCO Funds, Dreyfus Funds, Putnam Funds, and Citigroup Funds) accounted for just 48 percent of the industry's total assets under management and the 25 largest fund complexes accounted for 72 percent of the industry's total assets under management. Yet, in their *2004 Fact Book*, the ICI reports that these percentages are less than the comparable 1990 percentages. Analysts have argued at length about whether the industry is becoming more or less concentrated. Except for the significant hurdle to obtain distribution, the barriers to enter the mutual fund industry are not considered significant and therefore innovative entrepreneurs and major financial institutions have been able to enter the industry and be successful.

The typical management company provides or oversees a core set of services that includes fund administration, investment advisory, principal distribution, and transfer agent processing, including customer service. Often each service unit is organized as a separate subsidiary of the management company. The variety of fee arrangements through which the funds compensate the management companies for these services is endless. These fee arrangements have been the source of controversy and even litigation throughout the life of the industry. The current level of fees in the industry, and whether they are increasing or declining, is related to the issue of concentration and the transparency of fees paid by shareholders.

Table 3.3 Number of management companies, by primary distribution

Asset Range	Bank	Captive	Direct	Instl	Wholesale	Grand Total	Total AUM
< $1 Billion	30	8	203	23	94	358	$73 B
$1–$10 Billion	26	10	63	14	24	137	$491 B
$10–$25 Billion	5	3	7	3	13	31	$466 B
$25–$50 Billion	4	1	3	3	4	15	$508 B
$50–$100 Billion	2	5	2	2	5	16	$1169 B
> $100 Billion	1	1	4	1	12	19	$4149 B
Grand Total	68	28	282	46	152	576	
Total AUM	$668B	$668B	$2,256B	$467B	$2,798B		$6,857B

* Data as of December 2003

** Includes ETFs, Long-Term Funds, and Money Markets

Primary Distribution Methods:

Bank—funds sold through brokers or other intermediaries through the auspices of banks, in bank branch offices

Captive—funds distributed through a sales force that works directly for the same organization as the management company

Direct—funds sold directly to the investor by the distribution arm of the management company, typically with no load

Institutional—funds sold to institutions (corporations, foundations, etc.) rather than to individuals

Wholesale—funds sold to individual investors via third-party (i.e., noncaptive) brokers, typically load funds

Source: Financial Research Corporation (FRC)—FRC IMPACT

Table 3.4 summarizes the fee expenses paid by funds, which provided the revenue earned by fund service providers in 2003. Management companies earned the major part of the roughly $30 billion of fee revenue, although some significant part of it was passed on to third-party service providers. Mutual fund management has been a profitable business; Strategic Insight, an industry research firm, studied the 2003 financial reports of 12 publicly held management companies that collectively managed over $2 trillion in assets, and found their operating margin averaged about 39 percent. They further estimated that the management companies earned 0.24 percent pre-tax and about 0.16 percent after-tax on the assets under management.[11] If these ratios are representative for the industry as a whole, then management companies made about $11.8 billion in after-tax profit in 2003.

Table 3.4 Mutual fund industry fee expenses in 2003

Category	As a % of AUM	$ billions*
Advisory and Fund Administration	.454	21.90
Shareholder Servicing	.135	5.78
Custody	.012	.56
Audit	.004	.13
Legal	.004	.11
Other operating expenses†	.006	.26
Total	.600	29.77

*Based on weighted average assets under management for 2003 of approximately $4.8 trillion.

†Other operating expenses includes bookkeeping, directors, interest, postage, printing, registration, shareholder meetings, and taxes.

Source: Strategic Insight Simfund

Third-Party Service Providers

While management companies provide much of the support for U.S. mutual funds, nearly every function can be, and in some cases is, contracted out to third parties. Some functions, such as fund accounting and transfer agent processing, are performed internally in some fund complexes, and outsourced in others. Some functions fall to third-party providers because of regulations (e.g., custody, audit) or economies of scale (e.g., high-volume printing). Thus the industry has developed a robust set of service providers.

Investment Advisors

For most fund groups, the management company provides investment advisory service, as well as fund administration. Thus the majority of the $22 billion spent in 2003 on these functions was earned by the management companies. Some groups, particularly smaller ones, turn to external providers for these functions. Also, some larger fund groups use sub-advisors for management of certain types of assets that require special expertise, such as foreign securities.

Transfer Agents

Transfer agent processing and customer service may be done by either the management company or by one of a number of third-party transfer agents. Chapters 11 and 12 cover these functions and the organizations that perform

them. Strategic Insight estimates that the total amount spent on these functions in 2003 was about $5.78 billion (shareholder servicing in Table 3.4). Many large fund families perform this function internally and collect monies from the funds for performing this service. Transfer agent processing requires significant computer power and attention to the details of a very large number of shareholder accounts. Recently certain management companies for larger fund families have concluded that they do not want to commit the capital and human resources necessary and have outsourced this function to organizations that consider these attributes as "core competencies." There are a relatively few number of these third-party transfer agents who service many large and small fund families.

Fund Accountants

Fund accounting keeps the books of the funds—assets, liabilities, income, and expenses—in accordance with the provisions of the 1940 Act and subsequent regulations. It calculates the daily net asset value per share on which all share activity is valued. As with transfer agent functions, management companies sometimes perform fund accounting internally and sometimes contract with third parties for the service. Fund accounting is also one of the services some management companies cover under a unitary fee. Strategic Insight data indicates that the industry spent about $230 million on fund accounting services in 2003, an amount that is divided between management companies and third-party fund accounting organizations. Chapter 7 covers fund accounting functions and the organizations that perform them.

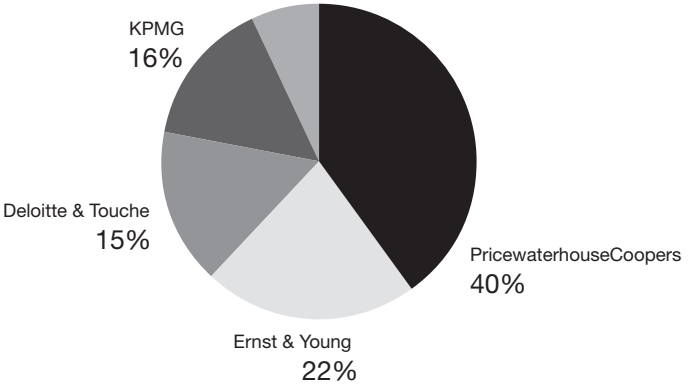
Custodians

The 1940 Act imposes very specific requirements on funds regarding the safekeeping, or custody, of their assets. They must place their securities with a "qualified custodian," defined as either (1) a bank; (2) a member of a national securities exchange; (3) the company itself; or (4) a central clearing system. A number of 1940 Act sections and subsequent rules prescribe requirements that must be met in each case. As a practical matter, most fund complexes today use banks for the bulk of their custody service. As Table 3.4 indicates, mutual fund custody was about a $560 million business in 2003. Chapter 6 discusses what the custodian does and how it interacts with the investment manager.

Auditors

The Securities Act of 1933 requires that any company offering its stock to the public engage independent accountants to audit the company's annual finan-

Figure 3.2 Auditors of U.S. open-end mutual funds market share based on assets under management, July 2004.



Source: Lipper, 2004

cial statements. Section 32(a) of the 1940 Act further requires that an investment company's board of directors vote annually to select its independent accountants, and that this selection generally be ratified by the vote of the shareholders. Investment company audit is a specialized practice, requiring that the auditors be familiar with the rules established for mutual funds. As Figure 3.2 shows, a handful of large accounting firms audit almost the entire universe of U.S. mutual funds. Investment company audit fees amounted to about $130 million in 2003.

Consulting and Legal Firms

Most of the large consulting and legal firms and many smaller ones provide service to the other players in the industry, particularly the management companies. For example, consulting firms often engage in large system integration projects to support the information technology needs of investment advisors, brokers, and transfer agents. They are compensated from the fee revenue earned by the management companies or other service providers.

Analysts and Rating Agents

A number of very specialized firms concentrate on observing and analyzing the industry and its players. Lipper Analytical Services (now a subsidiary of

Reuters) and Morningstar, Inc. have been leaders in the field of rating mutual funds according to their historical performance adjusted for risk. DALBAR, FRC Corporation, and Strategic Insight take measurements of the industry—fund characteristics, assets and flows, expenses—and sell this information and the analyses they perform upon it. Some portion of their revenue comes indirectly from the funds through management companies, service providers, and financial intermediaries who purchase their services.

Brokers and Other Intermediaries

Brokers play two different roles for the industry. When a fund's portfolio manager makes a securities trade, brokers and other intermediaries help execute that trade. A senior vice president at American Century Investments described how this might go: "My trading desk calls a sales trader, who calls the position trader, who calls the floor broker, and then the floor broker goes to the specialist."[12] The fund compensates this chain of intermediaries for their services in one of two ways, depending on the type of security. Often, particularly when the security is a stock listed on the New York Stock Exchange, the broker receives an explicit commission based on the amount of the trade, just as an individual investor would. In other cases, the brokerage firm makes its money through the spread—the difference between the bid and ask price for the security, or what it bought the security for and the selling price. Chapter 5 discusses the fund's interactions with these "sell-side" brokers.

The amount of money funds spend on brokerage services in executing trades is difficult to determine. Funds report the brokerage commissions they have paid in recent years in their SAIs. Livingston and O'Neal, studying this data for a sample of equity funds, determined that these brokerage commissions average about .28 percent of average net assets under management annually.[13] Chalmers, Edelen, and Kadlec found this to be .31 percent (31 basis points) for the sample of funds they studied, with an additional spread cost of 47 basis points.[14] John Bogle took a high-level stab at brokerage costs, stating that "a variety of studies suggest that [transaction costs] approximate 0.5 percent to 2 percent of fund assets per year, with higher costs for smaller funds with high rates of portfolio turnover and lower costs for larger funds with lower turnover rates."[15] As a rule of thumb, he suggested calculating this cost for a fund as 0.6 percent of the total annual portfolio turnover value (purchases plus sales). For equity securities, therefore, we use 60 basis points as an estimate of average cost of trading. When applied to the 2003 average equity holdings of 3.2 trillion, this gives trading costs of about $19 billion.

The trading cost for fixed-income securities is more difficult to determine, since it is often hidden in the price of the securities. The brokerage firm may

sell from its inventory, without explicit commission, instead making a profit by selling the security at a higher price than it paid. While some investment managers calculate an imputed commission for fixed-income trades, others do not, and commissions of this type are generally not believed to be precise enough to post to the accounting ledger. Thus the magnitude of what the funds pay for fixed-income securities transactions is obscure. If we assume that the hybrid, fixed-income, and money market segments of the industry incur costs similar in magnitude to the equity segment, then the total for the industry in 2003 might be estimated at about $9 billion.

This formula, applied to the industry as a whole for 1998, yields an estimate of around $28 billion for what the industry paid the brokerage firms and other intermediaries for transaction execution. This is far from a precise figure, however. It attempts to include the cost of market impact (i.e., the amount that the transaction itself changes the market price for the security), an item researchers have found great difficulty in quantifying.[16] By way of comparison, Bogle uses 60 basis points as an estimator; Chalmers, et al., use 78 basis points, and Mahoney, in another study of fund trading costs, arrives at a total of about $16 billion for equity funds alone for 2003, a figure generally consistent with the other analyses.[17]

The brokerage firms don't keep all of this money, however. They return a significant amount to the investment advisors in the form of soft dollar arrangements—effectively, rebates that the brokers give the advisors in the form of research and other services. A SEC study found that the brokers in the sample it studied turned, on the average, 12 percent in commissions the investment advisor paid the broker.[18] However, the investment advisors typically consume the soft dollar services, so they do not decrease the net flow from the funds. Chapter 5 discusses soft dollar arrangements, a practice that the SEC moved to curtail in 2004, in more detail.

The brokerage industry (broker dealers and other intermediaries, such as financial planners and bank trust departments) also earns revenue by selling the shares of some mutual funds to investors. Investors compensate these brokers either on a transaction basis (e.g., a front-end commission calculated as a percentage of the purchase amount), or on an asset basis (e.g., a trail commission calculated as a percentage of assets held), or both. Chapters 8 discusses brokers and other intermediaries and their roles in distributing mutual funds.

Commissions paid to brokers for fund share sales or asset retention fall into three categories:

1. *Front-end sales charges on purchase transactions.* Most load funds compensate the intermediary that sells their shares via a front-end load, a commission that is deducted from the amount that the investor pays. The

magnitude of the commission differs from trade to trade, depending on the commission rate structure of the fund, and any commission discounts the investor might receive due to volume.

2. *Ongoing, asset-based commissions (12b-1 commissions).* Rule 12b-1 allows funds to use fund (i.e., shareholder) assets to pay for distribution activities. In practice, funds that have 12b-1 fees assess a charge that typically ranges between .25 and 1.00 percent per year of asset value, and distribute most of this to the intermediaries that sold the shares on which the commission is assessed. "Pure" no-load funds do not assess the 12b-1 (or any other) sales charge.
3. *Sales charges paid upon redemption.* Some funds levy charges when an investor redeems shares. In some cases, these redemption fees merely compensate the fund for expenses incurred due to the redemption. Such fees are not sales charges and do not become revenue for anyone. Other redemption charges, notably contingent deferred sales charges, are commissions assessed against the investor at the time of redemption instead of time of purchase. These typically reimburse the fund's principal distributor for commission payments that were given to the intermediary at the time of purchase ("fronted" by the distributor), but not deducted at that time from the investor's payment. Chapter 8 describes these and other commission schemes in detail.

The ICI, in studies of the ownership of fund shares, determined that the average cost of ownership corresponding to annuitized sales loads in 2002 was 0.18 percent for equity funds, and 0.15 percent for bond funds (money market funds are mostly no-load).[19] Extending these figures by the average assets in equity and bond funds in 2003 (2003 rates are not available but are likely similar to those of 2002) results in about $8.2 billion for sales load expenses. The ICI also estimated that 12b-1 payments totaled $9 billion for 2002. Using that figure as an estimate for 2003 as well, we get a total cost of about $17 billion for sales and distribution.

Thus the brokerage industry, broadly defined to include any firm that (1) sells mutual fund shares to investors, or (2) helps execute portfolio security transactions for funds, received revenues from the funds and investors in 2003 somewhere in the neighborhood of $45 billion.

The Industry Associations

A number of nonprofit, member-supported associations address various aspects of the securities industry. Three in particular focus on the mutual fund segment.

The Investment Company Institute (ICI)

Shortly after the passage of the 1940 Act, the mutual fund executives who had worked together to help influence the legislation formally organized the National Association of Investment Companies. This organization would "avail itself of any opportunity to be of constructive assistance" to the SEC as it developed mutual fund regulation.[20] In 1961 it changed its name to the Investment Company Institute.

The Institute's mission is to advance the interests of mutual funds and their shareholders. This mission involves the Institute in a wide range of regulatory, legislative, and business matters, some of which are highly visible—such as advocating for increased retirement savings opportunities and improved tax treatment of mutual fund distributions. However, much of the Institute's work rarely draws public attention, yet is nonetheless extremely important to mutual funds and their investors—for example, helping mutual funds and their advisors comply with myriad regulations, laws, and securities industry initiatives that arise each year. In the long run, most of the Institute's work directly benefits mutual fund shareholders or helps them indirectly by enabling fund advisors and underwriters to work more effectively on their behalf.[21]

Mutual funds operated by virtually all of the management companies in the United States belong to the ICI. With headquarters in Washington, D.C., it is the industry's national trade association, and represents the industry frequently in hearings before Congress. Regular membership in the ICI is limited to SEC-registered investment companies, their investment advisors, and principal underwriters. Broker dealers and investment advisors to nonregistered funds may become associate members. The ICI staff gathers data and analyzes a wide variety of issues pertinent to the industry. The ICI publishes much of the data it gathers and the analyses it conducts on its Web site (www.ici.org), one of the richest and most useful sources of mutual fund industry information.

Members fund the ICI via an asset-based charge, the rates for which the ICI has been able to reduce in recent years as the growth of the industry has swelled fund asset values. In 2003, these dues amounted to about about $31 million.[22]

Lobbying for the Funds

The Lobbying Disclosure Act of 1995 defines lobbyists as individuals who (1) spend at least 20 percent of their time for a particular client on lobbying activities, (2) have multiple contacts with legislative staff, members of Congress, or high-level executive branch officials, and (3) work for a client paying more than $5,000 over six months for that service. The ICI employs lobbyists on behalf of the mutual fund industry. In

2000, it spent about $2.1 million on lobbying, and employed six in-house staff in lobbying activities, according to the Center for Responsive Politics' Web site (www.opensecrets.org). In addition, it gave $180,000 in political contributions. Overall, the ICI's spending on lobbying represented about two percent of the $92 million spent by the securities and investment industry as a whole. These expenditures had been declining: In 1998, the ICI ranked 77th in lobbying expenditures, just behind Atlantic Richfield and United Services Automobile Association, and just ahead of Sallie Mae and FedEx, but in 2000, its $2.1 million didn't make it into the top 100.

The list of big spenders among securities and investment industry lobbyists in 2000 included a few other associations: the Bond Market Association spent $2.9 million; the Securities Industry Association, $6.5 million; and the NASD, $1.1 million. Among securities industry firms, the leaders in spending were Morgan Stanley Dean Witter ($1.9 million), and Merrill Lynch ($1.7 million). Few pure mutual fund management companies made the list—several Fidelity subunits sum to come in as the leader. Presumably most fund companies let the ICI do the lobbying for them.

What do these lobbyists do? A lobbyist for DuPont explained it succinctly: "My mission is to get favorable decisions from the U.S. government on key public policy issues."[23] Along these lines, the ICI's lobbying mission is to ensure adequate representation of the mutual fund industry's point of view about any regulatory or legislative question that arises. This means making speeches, writing letters, arranging for and delivering congressional testimony, and above all, canvassing members of Congress and their staffs to present the industry argument. For example, the ICI was very active in lobbying for the law enacted in 1996 to curb state regulators' power to specify what funds must disclose in their prospectuses.

The Independent Directors Council is an entity housed within the ICI organization which serves the mutual fund independent director community and provides a venue to advance the education, communication, and policy positions of mutual fund independent directors. The Council itself consists of 21 independent director members. The Council extends to all directors an invitation to participate in the programs and activities offered by the Independent Directors Council.[24]

The National Investment Company Services Association (NICSA)

While the ICI represents the funds, NICSA represents the fund service providers. NICSA's membership includes about 450 companies that serve mutual funds as investment advisors, transfer agents, custodians, and providers of specialized services. Established in 1962 as an informal forum for operations and shareholder servicing professionals in the mutual fund industry, it remains a much smaller organization than the ICI. NICSA's annual budget of under $1 million

is funded by membership dues and proceeds from the conferences and seminars it sponsors.

NICSA describes its mission as that of providing educational networking and programming, as well as a forum for the discussion and distribution of information. It does this through an annual meeting and a series of regional meetings of the membership, specialized seminars of specific topics, and publications. Standing committees in such areas as distribution, fund accounting, transfer agency, retirement services, and technology address industry issues via presentations and publications.

Mutual Fund Directors Forum

Former SEC Chairman Arthur Levitt encouraged the creation of an independent directors forum that would serve to educate independent directors, offer them the opportunity to network among themselves, develop best practices for the independent directors, and provide them a voice with which to speak on emerging issues of importance to fund directors and fund shareholders. The Mutual Fund Directors Forum is supported by a number of independent legal counselors and auditors who serve on its advisory board. This organization is seeking to achieve economic scale to support its policy and education missions.

The Regulators

As the ICI never tires of pointing out, mutual funds form the most strictly regulated segment of the U.S. securities industry. Chapter 2 described the four principal securities laws that govern funds. Today, two national entities have primary oversight responsibility for the funds' compliance with these acts and subsequent regulations—the Securities and Exchange Commission (SEC) and the National Association of Securities Dealers (NASD). In addition, each state maintains securities regulatory bodies, although their scope of responsibility for mutual funds has been much reduced since 1996.

The SEC

The Securities Exchange Act of 1934 authorized the creation of the SEC as the primary agency responsible for administering federal securities laws. The SEC describes itself as "an independent, nonpartisan, quasi-judicial regulatory agency," and describes its mission as ensuring that "publicly held companies, broker-dealers in securities, investment companies and advisors, and other participants in the securities markets comply with federal securities law."[25] The

president of the United States appoints the five SEC commissioners to fixed, five-year terms, one of which expires each year. To ensure bipartisanship, no more than three serving commissioners may be of the same political party.

The SEC's Division of Investment Management administers the Investment Company Act of 1940, as well as the Investment Advisors Act of 1940 and the Public Utility Holding Company Act of 1936. Like the rest of the SEC, it is staffed by lawyers, accountants, financial analysts, examiners, investigators, economists, and other professionals. In early 2004, the Division had about 167 employees.[26]

The Investment Management Division's staff reviews and processes registration statements, proxy statements, and other reports the funds are required by law to file. It also monitors industry activity to ensure compliance with regulations concerning registration, financial responsibility, sales practices, and advertising. When SEC management deems it appropriate, the Division sponsors or conducts studies of particular issues in the industry as a basis for recommendations for regulation or legislation. For example, in early 2004 a staff economist of the SEC rendered a report of the impact of Rule 12b-1 on achieving economies of scale within funds that would result in lower expenses for fund shareholders. The conclusion of the study is that fund shareholders have not seen the benefits of economies of scale that would result in lower expenses and that the primary beneficiary of Rule 12b-1 has been the fund management companies that have had assets under management grow with a commensurate increase in fee revenues.[27]

No-Action Letters

Management companies and other industry firms can seek informal interpretive advice from the SEC in the form of "no-action" letters. The requesting organization writes a letter to the SEC, essentially saying, "Will you take any action if we do so-and-so?" describing some activity they would like to undertake but aren't sure is permitted. The SEC staff studies the proposed action, and, if they feel that it does not violate a statute or rule, the Office of General Counsel issues a "no-action" letter. The letter generally says that the staff "will not recommend to the Commission that it take enforcement action" related to the proposed activity.[28] These letters, while not legally binding, serve to alleviate concerns on the part of requesting organizations that their proposed action might lead to enforcement activity.

For example, in a few of the no-action letters it has issued, the SEC has stated that its staff would not recommend enforcement action if…

- investment advisors and their representatives use in their advertisements service quality ratings compiled by DALBAR, an industry consultant (provided they meet stated criteria designed to ensure the integrity of the ratings);

- a money market fund acquires a note designed by Goldman Sachs with an extensible maturity and quarterly rate reset (provided they treat each extension of the note's maturity as a separate acquisition and treat the note as a short-term variable-rate security);
- the John Hancock Funds use a greatly simplified and more readable prospectus as a prototype for simplified prospectuses across the fund complex;
- Nicholas Applegate includes in each of its funds' prospectus information concerning the performance of the investment advisor's similarly managed noninvestment company accounts (provided they meet a number of rules about how the information is presented);
- Munder Capital Management provides information via the Internet reflecting all new portfolio positions added or eliminated during the month, information about each portfolio company's business, and why the advisor made its recommendation regarding securities purchased or sold;
- a partner in a law firm serves as one of a fund's unaffiliated directors, even though one of his partners rendered legal advice to a bank that was a subsidiary of the parent company of the fund's investment advisor.

These summaries oversimplify letters that are usually several pages long, and filled with detailed provisions and references to statutes and regulations. Most no-action letters address such subtle or arcane issues in the interpretation of the regulations that they defy easy summarization. Nevertheless, no-action letters provide the industry and the SEC with a valuable tool for resolving the inevitable ambiguity associated with complex securities laws.

NASD

The Securities Exchange Act of 1934 empowered the SEC to regulate only the exchange markets. The Maloney Act of 1938 amended the 1934 Act to authorize the registration of national securities associations to regulate the activities of their broker dealer members in other markets. NASD, the only national securities association registered in accordance with these provisions, now regulates all broker dealers that do business with the U.S. public.

For mutual funds, NASD regulates much of the distribution activity. It regulates all brokers, including licensing those that sell only mutual funds (Series 6), those that sell mutual funds and other securities (Series 7), and the supervisors of the selling brokers. NASD reviews almost all sales and advertising materials produced by the funds, and may bring disciplinary proceedings against firms or individuals for violations of fund advertising or sales rules. NASD also has authority to establish a maximum limit on sales charges

on securities that its broker dealer members sell, which effectively enables it to set maximum limits for the sales loads the funds levy.

State Regulatory Bodies

Until 1996, state level regulation of mutual funds was far from uniform. In testimony to Congress in 1995, the ICI stated that it had identified 18 variants on mutual fund regulation at the state level, which it termed "a crazy-quilt of duplicative, conflicting, and inconsistent regulation."[29] In 1996, Congress enacted the National Securities Markets Improvement Act (NSMIA), which preempted state authority in three areas of regulation of investment companies.

1. *Registration.* Mutual funds need only comply with SEC registration requirements—all state-specific requirements are invalidated. The states can still require funds to submit copies of the documents they file with the SEC, and they can still levy fees on the funds for selling within the state, but they cannot impose any requirements concerning the format or content of the registration documents.
2. *Regulation of various offering documents.* States are precluded from directly or indirectly prohibiting, limiting, or imposing any conditions on various fund documents, including prospectuses, proxy statements, reports to shareholders, and others. The SEC remains the sole arbiter of mutual fund documents through which the funds disclose information to the public.
3. *Merit or substantive regulation.* States cannot regulate the way mutual funds operate, such as by imposing limits on portfolio investments or expenses.

The NSMIA explicitly preserved state law concerning mutual funds in three specific areas: (1) regulations against fraud; (2) requirements for notice filings; and (3) imposition of fees. This Act relieved the funds of a considerable burden in responding to fragmented and conflicting state regulatory requirements, and left the state securities regulatory offices mainly as fee collectors.

In 2003 and 2004, district attorneys in a number of states—including California, Massachusetts, and New York—have brought suits against management companies and others alleging that they committed fraud in connection with the market timing and late trading revelations that came to light in 2003. A number of these suits have resulted in management companies agreeing to lower their fees for a period of years to the benefit of present and future shareholders in the funds that they manage.

chapter 4 | The Mutual Fund—Product Definition

The unprecedented flood of cash… has spawned a tidal wave of highly specialized mutual funds.… One of the most successful new offerings is the Unpleasant Fund, which currently has stakes in barium enema companies, privately owned prisons, nuclear-waste disposers, and Yugoslavian cruise lines. The fund hedges its positions by shorting stocks that sound happy: Joy Tech, Merry-Go-Round Enterprises, Pep Boys.

—Joe Queenan[1]

The growth of the industry in the early 1990s to 3,000 funds prompted Joe Queenan to write his satiric article about the specialized niches many of them filled. Since then, the number of funds has almost tripled. At the end of 2003, it rivaled that of the total number of common stocks traded on the major exchanges—over 8,000 open-end funds as compared to about 2,800 stocks listed on the NYSE, 1,200 on the American Stock Exchange, and around 3,300 on the NASDAQ National Market.

Why are there so many funds? Three interrelated factors are responsible.

1. *Investment objectives.* Investors pursue a variety of objectives in holding mutual funds. For example, some seek current income; some seek capital preservation or appreciation; many seek a combination. They have different horizons for their investments, and varying appetites for risk. Their sensitivities to taxes, federal and state, differ. No fund can be all things to all investors. A fund manager must pick a particular investment objective to pursue (tax-free current income, for example), and operate the fund accordingly. As of 2004, the ICI recognized 33 broad categories of investment objectives for funds; other observers recognized even more.

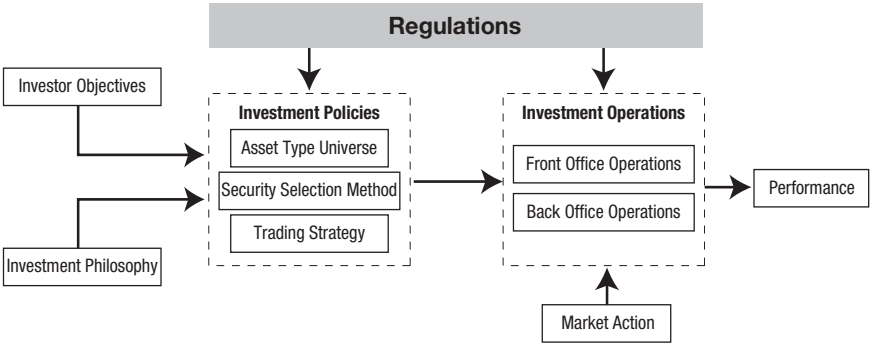
2. *Investment philosophy.* Different investment managers bring different philosophies of investing to their funds. Given an investment objective of aggressive growth, for example, two investment managers can differ dramatically in how they go about picking the securities to get that growth. Active versus passive management (discussed later in this chapter), for example, represents one great dichotomy in investment philosophy that has generated (and continues to generate) heated controversy. Among actively managed funds, different managers take widely differing approaches to determining which securities to buy and sell. This yields more variety—multiple funds will address a given objective in multiple ways.
3. *Competition.* The profit to be made in managing mutual funds has attracted many players into the market, and has spurred existing management companies to expand their product line. Banks, insurance companies, brokerage firms, and others entering the industry have swelled the number of fund families from just over 300 in 1988 to over 630 in 2004. While some fund companies are content to occupy a niche, many offer full lines of funds to capture as much of the investor's business as possible. For a given investment objective and philosophy, competing vendors will offer multiple products.

In short, the evolution of investment objectives and investment philosophies, and the increasing competition for investor dollars have fueled a fund explosion. The number of funds on the market grew by more than an order of magnitude during the last 20 years of the twentieth century.

Figure 4.1 illustrates the relationships among investor objectives and investment philosophy, how the fund ultimately operates, and how it performs. It also illustrates how this book parts company with almost every other book about mutual funds. Most of the hundreds of books that have been published in recent years focus on the left and right sides of Figure 4.1, ignoring the middle. They address some combination of (1) what the investor's objectives ought to be, (2) what the "correct" investment philosophy is, and (3) how to evaluate fund performance to pick funds that best meet these criteria. They prescribe how to select and use mutual funds, treating the fund operations in the middle as a black box.

This book opens that box and concentrates on the middle of Figure 4.1. It acknowledges that investors have differing objectives and fund managers have differing strategies and philosophies. It recognizes that these determine fund investment policies, which then drive investment operations—what asset types the fund holds and the way the manager goes about managing the portfolio. It does not attempt to advise anyone as to how to evaluate a fund's

Figure 4.1 Relationships among invesment objectives, philosophy, policies, and operations.



investment strategy or performance. Instead it focuses on what it takes to produce a mutual fund, given target customers, their objectives, an investment strategy, and the regulatory environment. This book describes how mutual funds, whatever their objective or style, actually work—how they are produced, how they are sold, and how they provide customer service.

This chapter sets the context for the discussion of the manufacturing component of fund management—the process of making and carrying out investment management decisions. It starts by reviewing how funds define themselves through the prospectus and statement of additional information. It illustrates the diversity of funds today by looking at several commonly encountered fund categorization schemes. It uses a sampling of different investment philosophies and styles to illustrate the dimension these add to fund variety. Finally, it discusses how these structural components of the fund drive the operations of the investment advisory and fund administrative organizations.

Defining the Fund

A registered mutual fund must explicitly define the investment objective it seeks to pursue, as well as how it will operate in pursuit of that objective. Registration itself requires the open end fund to submit (and regularly update) SEC Form N-1A, which details all aspects of the fund's organization. The instructions for Form N-1A effectively specify how mutual funds define themselves. Form N-1A comprises three parts:

1. Part A, the prospectus, which contains information the regulators believe to be essential to an investor making an informed decision whether to purchase the fund's shares;

Occupying a Niche

A universe of almost 8,000 funds does allow for some specialization. Not every fund has to invest in domestic blue chip stocks or AAA-rated corporate bonds. There's room for at least a few distinctive niches, mostly occupied by funds that aim at a narrowly targeted set of investors.

- A number of funds are religiously oriented. The Amana Mutual Funds Trust Income Fund, for example, is managed by Unified Management in Indianapolis with the North American Islamic Trust as a consultant. It invests, according to its prospectus, in a manner "consistent with Islamic principles." These include avoiding any securities that pay interest as well as sticking to companies that make ethical products. Another example, The Catholic Fund, keeps 80 percent of its assets invested in companies with products and services that support the teachings of the Roman Catholic Church. And one management company—Thrivent Financial—targets Lutheran investors.
- At least one fund—the Women's Equity Mutual Fund—attempts to help women try to break through the glass ceiling. WEMF invests only in companies that have records of promoting women into top executive and board positions, actively training them, and paying them fairly. It explicitly avoids companies that repeatedly violate the Equal Employment Opportunity Act or use sexist stereotypes in the workplace.
- The Meyers Pride Value Fund attempts to tap the $800 billion pool of assets that U.S. gays and lesbians are said to control. It screens for pro-gay policies in the firms in whose stock it invests.
- The Columbia Young Investor Fund aims small—specifically, at children. It gives its shareholders a quarterly newsletter written in language children can understand, activity books, and wall charts to track their investment growth. It produces a parents' guide explaining how to discuss money issues with children. And, it invests in companies that mean something to most children, such as Walt Disney, McDonald's, and Coca-Cola.
- Several fund groups serve minorities. For example, the DEM Equity and DEM Index mutual funds, managed by Baltimore's Chapman Capital Management, focus on what their advisor terms "domestic emerging markets." These include publicly traded companies that are U.S.-based but controlled by African Americans, Asians, Hispanics, and women.
- One fund plays on regional pride. The IAI Regional Fund, managed by Investment Advisors, Inc. of Minneapolis, holds at least 65 percent of its assets in the stock of companies located in the eight states of the upper Midwest. As a benchmark against which to compare its performance, it uses the IAI Midwest 300, a composite index of the stock prices of 300 firms based in those states.

2. Part B, the statement of additional information (SAI), which contains information the disclosure of which the SEC has concluded is not necessary for investor protection, but which some investors may find useful; and

3. Part C, further information the SEC requires to complete the registration, but which is not typically distributed to investors.[2]

In addition, the SEC in recent years has urged companies to prepare simpler, more understandable disclosure documents, and as part of this effort allows funds to prepare a profile, a shortened, simplified version of the prospectus.

The Prospectus

The Securities Exchange Act of 1934 requires that any publicly offered security be described by a prospectus, and that the prospectus be delivered to anyone considering purchase of the security. The SEC has expanded upon the 1934 Act requirements to define exactly what goes into an open end fund prospectus, revising this definition substantially in 1998. Specifically, an open end fund prospectus must contain the eight items described below. As an example, please refer to the C/Funds Group prospectus, as of February 28, 2000, which can be found on-line through the SEC's website: www.sec.gov/ or directly at the address: http://www.sec.gov/Archives/edgar/data/764304/0000764304-00-000003.txt.

1. *Front and back cover pages.* The front cover page must contain the fund's name, the prospectus date, and some standard disclaimer language. The front cover may contain a brief description of the fund's investment objectives. The back cover must explain how to get the SAI and other additional information about the fund. To package the prospectus more attractively, some funds put an additional outside cover on it, with whatever graphics or other information they desire, and the disclaimer "this wrapper is not part of the prospectus."
2. *Risk/return summary: investments, risks, and performance.* The fund must disclose its investment objectives, and summarize how it intends to meet them by identifying its principal investment strategies. It must also discuss the risks the investor incurs in investing in the fund. The regulations require both a narrative description of the nature of the risk and quantitative data, some displayed graphically, on the fund's historical risk/return characteristics. In recent years, the SEC added a further requirement that funds other than money market funds include two sets of returns after taxes—one assuming only payment of taxes on fund distributions, and another further assuming that the fund shares are redeemed at the close of the period. The C/Funds prospectus provides this information on a separate set of pages for each of the five funds in the series.
3. *Fee tables.* This section must first specify the fee and expense charges (including commissions and other sales charges) the shareholder incurs as part of holding the fund, and then show the total cost of investing

over one-, three-, five-, and ten-year periods. While brokerage costs for portfolio trading are not among the items that must be listed among the fund's fees and expenses, the rules do require the prospectus to discuss the consequences of portfolio turnover if they are expected to be significant. As with Item 2, the C/Funds repeat Item 3 for each of the five funds in the series.

Disclosing the Risk of a Fund

How do you best express the risk associated with a mutual fund? The SEC, the funds, the ICI, and the rating agents have been wrestling with this question for years. The SEC has rules embedded in the instructions for Form N-1A, but no one believes that today's rules will be the last word on the subject.

Academics have long defined investment risk as equal to uncertainty in investment return, and generally equated that with variability in those returns.[3] The more an investment's performance varies, the greater the chance that the performance will be down at that particular point in time when the investor happens to need to liquidate the investment. Most often, this variability is measured by the standard deviation of the difference between the fund's return and that of a benchmark—the risk-free returns of U.S. Treasury securities or that of an appropriate index. A fund that tracks closely to the performance of its benchmark is considered lower-risk than one that deviates considerably from it.

Investors themselves define risk much less crisply. In 1996, the ICI released the results of a survey it conducted, exploring what investors thought about risk in mutual fund investing.[4] Most respondents felt that at least two different concepts were appropriate. The top six definitions, along with the percentage of the 648 respondents who selected each of them are as follows.

1. Losing some of the original investment (49 percent);
2. Investment not keeping up with inflation (40 percent);
3. Value of the investment fluctuating up and down (46 percent);
4. Not having enough money at the end of the investing period to meet one's goals (41 percent);
5. Income distribution from the investment is declining (33 percent);
6. Investment not performing as well as a bank CD (22 percent).

Most investors surveyed also preferred both a narrative description of the nature of the fund's risk, as well as a bar graph showing the fund's total return over some period.

The current SEC requirements for prospectus disclosure of risk reflect these investor preferences. They specifically require that a fund disclose the principal risks of investing in the fund in two ways.

1. *Narrative risk disclosure.* The fund must summarize the principal risks of investing in the fund, and discuss circumstances reasonably likely to have a negative impact on the fund's NAV, yield, and return. The C/Funds prospectus, for example, which

describes an asset allocation investment strategy, talks about how it can be adversely affected by a decline in stock prices when it is primarily invested in equities, and how interest rate risks affect it when it has shifted to fixed-income securities.

2. *Risk/return bar chart and table.* The bar chart must show the annual total return for the fund for the previous 10 years (or since inception). The table must show the fund's average annual return for the past one, five, and 10 years (to the extent available), and must show how these compare to a broad measure of market performance. The C/Fund, for example, uses Standard and Poor's Composite Index of 500 Stocks (the S&P 500) as a comparison. The fund must also show the highest and lowest quarterly return it has achieved over the 10-year period. The C/Fund's performance has ranged from a low of –9.7 percent (in third quarter, 1990) to a high of 17.1 percent (in fourth quarter, 1998).

Finally, to make it absolutely, positively clear that risk is involved in mutual fund investing, the SEC also requires that all funds (except money market funds) state simply and explicitly in this section of the prospectus that losing money is a risk of investing in the fund. The C/Fund's version is representative: on page 1 of the prospectus it states flatly:

> *As with all marketable securities, risk of price declines of Fund securities is unavoidable.*

Could We Speak English Here, Please?

In 1993, Arthur Levitt, Jr. incoming chairman of the SEC, had to divest himself of certain stocks that he owned as a requirement of taking the new position. Searching for mutual funds into which to invest his proceeds, he began reading mutual fund prospectuses. What he found appalled him. The language employed made them, as he put it "unintelligible to all but a few lawyers and market professionals."[5] If he, a former investment banker and stock exchange chairman, had trouble understanding them, then what must they seem like to the average investor? Levitt consequently launched the SEC on a crusade to improve investor disclosure by making prospectuses easier to understand. Over the next few years, the SEC's Plain English Project studied the problem, conducted trials, and developed guidelines.

In 1998, the SEC formally adopted rules requiring mutual funds (and other companies) to use plain English in the cover page, summary, and risk factor sections of all prospectuses. (The SEC put the same rules into effect in writing their own regulations.) The rules require that the writers of prospectuses use simple, clear language to organize, design, and write these prospectus sections. They prescribed six specific practices:

- use active (not passive) voice;
- write in short, declarative sentences;
- use definite, concrete, everyday words;
- whenever possible, employ tabular data presentations or bulleted lists to explain complex material;

- avoid legal jargon and highly technical business terms; and
- avoid multiple negatives.

More generally, the rules require prospectus writers to know their audience, know what information is important and needs to be disclosed, and design and structure the prospectus so that it's easy and inviting to read. The SEC prepared a 28-page manual entitled "The Plain English Handbook: How to Create Clear SEC Disclosure Documents," to provide guidance in plain English practices.

Levitt enlisted Warren Buffett, who has been praised for his clear, understandable letters to Berkshire Hathaway shareholders, to write a preface to the manual. Buffett provided an example of what could be achieved through application of the principles.

Before (from an actual prospectus):

Maturity and duration management decisions are made in the context of an intermediate maturity orientation. The maturity structure of the portfolio is adjusted in the anticipation of cyclical interest rate changes. Such adjustments are not made in an effort to capture short-term, day-to-day movements in the market.

After (as rewritten by Buffett):

We will try to profit by correctly predicting future interest rates. When we have no strong opinion, we will generally hold intermediate-term bonds.

These SEC efforts have sparked some controversy within the industry. Plain English opponents advance two lines of argument. The first maintains that the prospectus covers complex, subtle issues, and that it is naive to believe that these can be reduced to simple terms. The other focuses more on the liability associated with inadequate disclosure, arguing that funds open themselves to litigation if their efforts to simplify prospectus language result in inadequate descriptions of the fund's investment policies and associated risks. Speaking of prospectus language, a representative of the New York Bar Association pointed out that it has "taken generations of lawyers to make sure that it's all in there and it's all correct."[6] So far, however, the SEC has stood its ground on the issue, and even offered an incentive—cutting by half the time the SEC takes to pass on a registration if the prospectus complies with the plain English guidelines.

4. *Investment objectives, principal investment strategies,* and related risks. This section expands on the summary provided in Item 2. In discussing how the fund intends to meet its investment objectives, the prospectus should describe the principal investment strategies, including the types of securities in which the fund will invest.

   The prospectus should also explain in general terms how the fund's advisor decides which securities to buy and sell. The SEC has in recent years encouraged funds to write meaningful, plain English prose in this section, with mixed results. The C/Funds prospectus combines Items 2 and 4 into a single discussion.

5. *Management, organization, and capital structure.* The prospectus must provide the name and address of the investment advisor(s) and describe how they are compensated. It must also identify the individuals responsible for the day-to-day management of the fund. The SEC also now requires that this section include a statement that the board's basis for approving the fund's investment advisory contract is discussed in the fund's shareholder reports. Disclosures of the board's reasoning for approval had previously been required in the Statement of Additional Information, but in 2004 the SEC determined that it deserved more prominent (and extensive) disclosure to shareholders. Another brand new provision requires the disclosure of the specific individual primarily responsible for managing the fund (other than for money market funds.) If there are legal proceedings pending, or unique capital structure arrangements that would expose investors to risk, these must be disclosed in this section of the prospectus. The C/Funds prospectus reveals an item commonly encountered in this area: The management company has agreed to a voluntary limit on the total expenses of the fund.
6. *Shareholder information.* This section includes descriptions of how the fund's shares are priced, how a shareholder purchases and sells shares, the fund's policy on dividends and capital gains, and the tax consequences of investing in the fund. This section of the prospectus has had significant changes in response to the market-timing/late-trading scandal, including new requirements to explain: a) the circumstances under which the fund will use "fair value" pricing to value its portfolio (see Chapter 7 for further discussion); b) the risks to shareholders of the fund as a whole from the frequent trading activities of certain shareholders; c) whether the fund's board has adopted policies and procedures to either discourage or accommodate frequent traders; and d) the procedures used to deter frequent trading, including restrictions imposed to prevent or minimize its occurrence (such as limits on the number of trades, minimum holding periods, restrictions on transaction requests made by such express methods as telephone, fax, overnight delivery, or on-line, and special costs or fees. The C/Funds prospectus shows entries typical of a no-load fund family.
7. *Distribution arrangements.* The fund must disclose and describe any sales loads involved in purchasing or selling shares. It must also describe any distribution fees assessed against shareholders under Rule 12b-1. Additionally, this topic includes a requirement to disclose special provisions of a multiple-class or master-feeder fund structure. A new requirement has recently been added to discuss arrangements which result in sales load breakpoints or the elimination of sales charges, ranging from exchange privileges to waivers for particular classes of investors. Since the C/Funds

are pure no-load funds, with neither transaction commissions nor 12b-1 charges, this section is omitted from their prospectus.

8. *Financial highlights information.* The rules specify a list of financial data the fund must provide in columnar form for each of the preceding five years (or since inception, if the fund is less than five years old). The prospectus must also identify the fund's auditor, and tell how to get the audit report and more detailed financial information.

While there is evidence that many investors do not actually read and understand a fund's prospectus before investing, the prospectus remains the single most important source of information about a fund.[7] A lively public debate usually ensues from any SEC proposal for significant change to mutual fund prospectus rules.

The Statement of Additional Information

The SAI contains information that the SEC has determined does not need to be in the prospectus to ensure investor protection, but that some investors may find useful. Regulations do not require a fund to provide the SAI unless the investor specifically requests it, and the SAI cannot substitute for the prospectus. Items 9 through 22 of Form N-1A comprise the SAI.

9. *Cover page and table of contents.* In addition to the fund's name and the effective date, the SAI must state on its cover that it is not a prospectus, and tell the reader how to get a copy of the prospectus.
10. *Fund history.* This tells when the fund was organized, in what form, and under what state's jurisdiction. If the fund changed its name, this must also be disclosed.
11. *Description of the fund and its investments and risks.* This section expands upon the information in the prospectus, discussing fund policies in more detail. For example, the C/Funds prospectus summarizes investment policies and risks in less than one page, while its SAI treats these same subjects in a four-page, detailed discussion. Among other things, the C/Funds' SAI details the investment restrictions under which the funds operate, restrictions that can be changed only by approval of the shareholders. Additionally, as another response to the market-timing scandals, this section is now also required to disclose the fund's policies for making portfolio information available to anyone, including particular investors, intermediaries, or fund rating services, outside of a general distribution to the public.
12. *Management of the fund.* The SAI identifies the members of the fund's board of directors (or trustees), their affiliations, and how much compensation they receive, both from the fund and from the fund com-

plex in total. This section also includes information about the standing committees of the board, board members' ownership of shares in the fund complex they oversee, other relationships independent directors may have with the fund or its affiliates, the existence of a code of ethics relating to the fund, and policies adopted by the board to govern the voting of proxies relating to portfolio securities owned by the fund. The C/Funds pay their nonaffiliated directors the modest sum of $4,300 per year, while their affiliated directors receive no additional compensation beyond what they receive for their duties with the management company.

13. *Control persons and principal holders of securities.* The SAI must disclose who, if anyone, controls the fund by owning more than 25 percent of its voting securities. It also lists any principal holders (individuals or institutions holding five percent or more of the shares). The C/Funds example shows some owners of five percent or more of some of their funds.
14. *Investment advisory and other services.* The SAI disclosure expands on that contained in the prospectus. It requires the fund to identify the investment advisor and any persons affiliated with both the fund and the advisor; the fund must also describe the fee arrangement and the amount of fees paid to the advisor over the past three years. The fund must provide similar information for its principal underwriter and other service providers, as well as information about the operation of the fund's distribution plan adopted under Rule 12b-1.
15. *Portfolio managers.* In 2004, the Commission adopted an entirely new disclosure section to provide more information about the specific individuals primarily responsible for managing the fund. The disclosure includes the number of other accounts managed by the individual manager (registered investment companies, other pooled accounts such as "hedge funds," and separately managed advisory accounts, such as for pension plans and wealthy individuals), as well as the total assets under management; a description of material conflicts of interest arising from managing the fund and those other accounts, such as conflicts in investment strategies or allocation of portfolio transactions among accounts; a description of the methods used to determine the manager's compensation (including the benchmarks used to measure compensation based on portfolio performance); and the portfolio manager's ownership of the fund's securities.
16. *Brokerage allocation and other practices.* The fund must describe how portfolio transactions are executed, and its policies for selecting brokers. It must also disclose its aggregate brokerage commissions over the past three years, and disclose the specific commission amounts paid to any

brokers affiliated with the fund. The C/Funds paid relatively modest brokerage commissions of about $40,000 (an effective rate of less than two basis points) in 1998, due to their low portfolio turnover.

17. *Capital stock and other securities.* The fund must provide certain information for each class of capital stock of the fund. For most open-end funds that do not issue multiple classes of capital stock with different shareholder rights, this item is as straightforward as that of the C/Funds example found in SEC filings available at www.sec.gov/.
18. *Purchase, redemption, and pricing of shares.* This section typically repeats and perhaps expands upon the information contained in Item 7 of the prospectus. For example, the C/Funds prospectus merely states that a shareholder may request a certificate in writing, while the SAI describes the request procedure and points out that issuance of certificates is discouraged due to the additional cost involved. Additionally, this item now includes a requirement to disclose any arrangements made to permit frequent purchases and redemptions of fund shares, including the identity of those permitted to do so.
19. *Taxation of the fund.* This item also expands upon the information in the prospectus. The C/Funds, for example, merely state in the prospectus that they are qualified for pass-through status under Subchapter M of the IRS code, whereas they describe in the SAI what actions they take to maintain that status.
20. *Underwriters.* The fund must identify its principal underwriters, and the aggregate amount of underwriting commissions it paid in the past three years. As pure no-load funds, the C/Funds paid no explicit underwriting commissions, since the management company provides that service as part of what it does for its 100–basis point advisory fee.
21. *Calculation of performance data.* The fund specifies exactly how it calculates the performance figures it reports. The C/Funds describe how they calculate total return for their funds, as well as how they calculate 30-day yield for bond funds.
22. *Financial statements.* The funds must provide the most recent annual and semi-annual reports. The C/Funds do as most funds do, and incorporate this information by reference, explaining how one can obtain the two reports.

For the investor attempting to understand the total picture of a fund's investment policies, relationships, and expenses, the SAI contains some essential information that is not available in the prospectus. Getting an SAI isn't always as straightforward as it would appear to be, however. While most funds make the prospectus available for download via the Internet, fewer provide the SAI that way. And Livingston and O'Neal, when conducting

their study of fund brokerage costs in the early 1990s, found that it often took repeated requests to get the SAI (and 60 out of the 300 funds they contacted never did send an SAI at all).[8] Today, one can download a roughly formatted SAI for most funds from the SEC's Electronic Data Gathering and Retrieval (EDGAR) system, via the SEC's Web site (http://www.sec.gov).

Other Information

Finally, Part C of Form N-1A requires "Other Information" that becomes part of the public record, but which is not normally distributed to investors. This includes such items as the fund's articles of incorporation, detailed information about personnel employed by the investment advisor or serving as a director or trustee, the location of the fund's accounts and records, and any other relevant information about service contracts not provided in the prospectus or SAI.

The Profile

In 1995 the SEC launched an experiment aimed at improving disclosure to investors by having funds provide a simplified, standardized document called the profile prospectus. Four pages long, the profile prospectus comprised nine specific pieces of information appearing in a standardized sequence. During 1995 and 1996, eight fund groups participated in a trial run. As a result of the trial, the SEC decided to allow funds the option of offering a profile instead of a prospectus to a potential investor, if the investor so chooses.

While some fund groups prepare the profile today, most do not. The profile cannot completely replace the prospectus—an investor may always request to see the full prospectus even if the fund provides a profile. Thus many funds see the profile as a duplication of effort—something else they must keep up-to-date, print, and mail. Also, some fund groups worry that the shorter document might expose them to charges of not adequately disclosing information about their funds.[9]

Categories of Funds

Any sufficiently complex set of objects may be categorized in a number of different ways, and mutual funds are no exception. Most of the schemes one will encounter, however, classify a fund based on some combination of its stated investment objective, the types of assets it holds, and how it selects those assets. Does the fund pursue capital growth, income, or both? Does it hold stocks, bonds, or both, and in what countries or regions are the issuers of those securities? Does it select stocks based on a qualitative evaluation of the issuing company's prospects, or on a technical analysis of stock price patterns? Does it hold corporate or government debt securities? The list goes on and on.

Classification schemes impose a conceptual order upon the otherwise overwhelming mass of detail about individual funds. They also allow for meaningful comparisons among funds. Investors can use them to determine which funds are appropriate for their portfolios (e.g., which funds should be considered for long-term capital appreciation). Ratings organizations can use them to compare funds to indices (e.g., which funds' performance should be evaluated against the performance of the Wilshire 4500). Fund management companies can use them to measure fund performance against peers (e.g., how well this government long-term bond fund has performed as compared to other government long-term bond funds).

There are enough different mutual fund categorization schemes that we could talk about taxonomies of taxonomies. Instead, we will merely review three of the most commonly used categorization schemes—those formulated by the ICI (the industry's trade association), Morningstar (a research and rating agency), and Lipper (another research and rating agency). All three schemes (and, indeed, almost all other fund classification schemes) start with the basic breakdown of equity, long-term fixed income, and money market funds, and extend it to finer categorizations. The three schemes differ slightly from one another, reflecting the different purposes for which they are intended.

The Investment Company Institute

The ICI collects data on mutual fund activity—sales, redemptions, reinvestments, net exchanges, and other items—and publishes this data monthly. For the purposes of publishing this summary data, the ICI groups funds into six major investment categories: stock, hybrid, taxable bond, municipal bond, taxable money market, and tax-exempt money market. Within these six broad categories, it recognizes 33 specific investment objectives that funds pursue (see Table 4.1).

A scan of the ICI categories reveals that they primarily reflect what types of securities the funds hold. Within the major asset class breakdowns, funds are further subdivided according to more specific security selection criteria (e.g., from a particular geographic region, from a particular industrial sector, issued by a particular state). The ICI's categorization scheme has changed over time as the number of funds has increased. In 1998, the ICI increased the number of distinct categories it recognized from 21 to 33. In its role as the industry association, the ICI offers no comments or analysis on the performance of particular funds. It merely collects and publishes data about fund categories for research purposes. The ICI puts a particular fund into a category based on the prospectus description of the fund's investment objective and policies.

Table 4.1 Investment Company Institute Fund Categories and Descriptions

Stock Funds
1. **Aggressive growth** funds invest primarily in common stock of small growth companies with potential for capital appreciation.
2. **Emerging-market equity** funds invest primarily in equity securities of companies based in less-developed regions of the world.
3. **Global equity** funds invest primarily in worldwide equity securities, including those of U.S. companies.
4. **Growth and income** funds attempt to combine long-term capital growth with steady income dividends. These funds pursue this goal by investing primarily in common stocks of established companies with the potential for both growth and good dividends.
5. **Growth** funds invest primarily in common stocks of well-established companies with the potential for capital appreciation. These funds' primary aim is to increase the value of their investments (capital gain) rather than generate a flow of dividends.
6. **Income equity** funds seek income by investing primarily in equity securities of companies with good dividends. Capital appreciation is not an objective.
7. **International equity** funds invest at least two-thirds of their portfolios in equity securities of companies located outside the United States.
8. **Regional equity** funds invest in equity securities of companies based in specific world regions, such as Europe, Latin America, the Pacific Region, or individual countries.
9. **Sector equity** funds seek capital appreciation by investing in companies in related fields or specific industries, such as financial services, health care, natural resources, technology, or utilities.
Bond Funds
10. **Corporate bond–general** funds seek a high level of income by investing two-thirds or more of their portfolios in corporate bonds and have no explicit restrictions on average maturity.
11. **Corporate bond–intermediate term** funds seek a high level of income with two-thirds or more of their portfolios invested at all times in corporate bonds. Their average maturity is five to 10 years.
12. **Corporate bond–short term** funds seek a high level of current income with two-thirds or more of their portfolios invested at all times in corporate bonds. Their average maturity is one to five years.
13. **Global bond–general** funds invest in worldwide debt securities and have no stated average maturity or an average maturity of more than five years. Up to 25 percent of their portfolios' securities (not including cash) may be invested in companies located in the United States.
14. **Global bond–short term** funds invest in worldwide debt securities and have an average maturity of one to five years. Up to 25 percent of their portfolios' securities (not including cash) may be invested in companies located in the United States.
15. **Government bond–general** funds invest at least two-thirds of their portfolios in U.S. government securities and have no stated average maturity.
16. **Government bond–intermediate term** funds invest at least two-thirds of their portfolios in U.S. government securities and have an average maturity of five to 10 years.
17. **Government bond–short term** funds invest at least two-thirds of their portfolios in U.S. government securities and have an average maturity of one to five years.
18. **High-yield** funds seek a high level of current income by investing at least two-thirds of their portfolios in lower-rated corporate bonds (Baa or lower by Moody's and BBB or lower by Standard and Poor's rating services).

Table 4.1 *(continued)*

19. **Mortgage-backed** funds invest at least two-thirds of their portfolios in pooled mortgage-backed securities.
20. **National municipal bond–general** funds invest predominantly in municipal bonds and have an average maturity of more than five years or no stated average maturity. The funds' bonds are usually exempt from federal income tax but may be taxed under state and local laws.
21. **National municipal bond–short term** funds invest predominantly in municipal bonds and have an average maturity of one to five years. The funds' bonds are usually exempt from federal income tax but may be taxed under state and local laws.
22. **Other world bond** funds invest at least two-thirds of their portfolios in a combination of foreign government and corporate debt. Some funds in this category invest primarily in debt securities of emerging markets.
23. **State municipal bond–general** funds invest primarily in municipal bonds of a single state and have an average maturity of more than five years or no stated average maturity. The funds' bonds are exempt from federal and state income taxes for residents of that state.
24. **State municipal bond–short term** funds invest predominantly in municipal bonds of a single state and have an average maturity of one to five years. The funds' bonds are exempt from federal and state income taxes for residents of that state.
25. **Strategic income** funds invest in a combination of domestic fixed-income securities to provide high current income.
Hybrid Funds
26. **Asset allocation** funds seek high total return by investing in a mix of equities, fixed-income securities and money market instruments. Unlike Flexible Portfolio funds (defined below), these funds are required to strictly maintain a precise weighting in asset classes.
27. **Balanced** funds invest in a specific mix of equity securities and bonds with the three-part objective of conserving principal, providing income, and achieving long-term growth of both principal and income.
28. **Flexible portfolio** funds seek high total return by investing in common stock, bonds and other debt securities, and money market securities. Portfolios may hold up to 100 percent of any one of these types of securities and may easily change, depending on market conditions.
29. **Income mixed** funds seek a high level of current income by investing in a variety of income-producing securities, including equities and fixed-income securities. Capital appreciation is not a primary objective.
Money Market Funds
30. **National tax-exempt money market** funds seek income not taxed by the federal government by investing in municipal securities with relatively short maturities.
31. **State tax-exempt money market** funds invest predominantly in short-term municipal obligations of a single state, which are exempt from federal and state income taxes for residents of that state.
32. **Taxable money market–government** funds invest principally in short-term U.S. Treasury obligations and other short-term financial instruments issued or guaranteed by the U.S. government, its agencies, or instrumentalities.
33. **Taxable money market–nongovernment** funds invest in a variety of money market instruments, including certificates of deposit of large banks, commercial paper and banker's acceptances.

Source: Investment Company Institute, "A Guide to Mutual Funds," 2004 (www.ici.org)

Morningstar

Established in 1984, Morningstar, Inc., provides investors with information, analysis, and research, including ratings and other comparative data for mutual funds. Morningstar does evaluate the performance of individual funds, using its fund categories as the basis for comparing funds to their peers. Morningstar used to classify funds according to their stated objectives, but changed in 1996 to base its scheme on what the funds actually hold.[10] Research had shown that simply using prospectus language resulted in misclassification of a significant proportion of funds, especially among equity funds.[11] Prospectus language allows funds enough latitude that they may "drift" into patterns of holdings that no longer match those described in the prospectus as they pursue higher returns.

Morningstar divides the long-term mutual fund universe into four basic groups: domestic stock funds, international stock funds, taxable fixed-income funds, and tax-free municipal bond funds. (Morningstar does not categorize or rate money market funds.) Morningstar subdivides these broad categories into 64 specific categories for publication of group returns. Table 4.2 lists the 65 Morningstar fund categories as of late 2003. Morningstar aims primarily at the investor as it categorizes funds. "We wanted to group funds that have meaningful clusters of characteristics," a Morningstar spokesman declared. "Investors should be able to identify a group by a label and then be able to pick a fund from that group."[12]

Morningstar uses 34 equity fund categories to the ICI's nine for three reasons. First, it places U.S. general stock funds into nine groups based on the size of companies whose stocks the funds hold, and the fund's investment philosophy (growth, value, or blend). Second, it identifies 11 categories of sector funds, whereas the ICI lumps them all into one category. Finally, it identifies 14 categories of international stock funds (based on specific regions in which the fund invests or the investment philosophy) to the ICI's two. The differences between Morningstar and ICI bond categories are smaller, attributable mostly to Morningstar's recognition of specific, single-state, tax-exempt bond fund categories.

Lipper

Lipper Analytical Services started providing fund information in 1973. (Acquired by Reuters in 1998, the firm today simply calls itself Lipper.) Whereas Morningstar aims primarily at investors and financial advisors, Lipper earns the bulk of its revenues from the fund companies. Many management companies base at least part of their portfolio managers' compensation on how well their funds do as compared to their counterparts within the Lipper categories.

Table 4.2 Morningstar Fund Categories

Domestic Equity	International Equity	Taxable Bond
Large Growth	Specialty-Precious Metals	Long Government
Mid-Cap Growth	World Stock	Intermediate Government
Small Growth	Europe Stock	Short Government
Large Blend	Diversified Pacific/Asia	Long-Term Bond
Mid-Cap Blend	Pacific/Asia ex-Japan Stk	Intermediate-Term Bond
Small Blend	Japan Stock	Short-Term Bond
Large Value	Diversified Emerging Mkts	Ultrashort Bond
Mid-Cap Value	Latin America Stock	Bank Loan
Small Value	World Allocation	High-Yield Bond
Specialty-Natural Res	Foreign Large Value	Mulitsector Bond
Specialty-Technology	Foreign Large Blend	World Bond
Specialty-Utilities	Foreign Large Growth	Emerging Markets Bond
Specialty-Health	Foreign Small/Mid Value	Stable Value
Specialty-Financial	Foreign Small/Mid Growth	Municipal Bond
Specialty-Real Estate		High-Yield Muni
Specialty-Communications		Muni National Long
Bear-Market		Muni National Interm
Conservative Allocation		Muni National Short
Moderate Allocation		Muni Single State Long
Convertibles		Muni Single State Int/Sh
		Muni New York Long
		Muni New York Int/Sh
		Muni California Long
		Muni California Int/Sh
		Muni Florida
		Muni Pennsylvania
		Muni Massachusetts
		Muni New Jersey
		Muni Ohio
		Muni Minnesota
		Muni Single State Short

Source: Reprinted by permission of Morningstar, Inc.

Combining Risk and Return: The Morningstar Stars

Americans like for critics to sum up their critiques with simple measures of overall goodness. Thus movie reviewers give one or two thumbs up; *Michelin* tells us where the five-star restaurants are; *Consumer Report*s summarizes its product analyses with patterns in little circles. We see this reflected even in business-to-business communications, as when Moody's and Standard and Poor's conduct exhaustive analyses of companies, and then

summarize them with short letter/number ratings. And ratings can carry great weight—five stars from *Michelin* or an AAA rating from Moody's has large financial ramifications for the organization that receives it.

Morningstar, Inc. has achieved a similar effect with its star ratings for mutual funds. Many investors use this popular fund rating scheme as a navigation beacon marking the channel to good fund investment. One study in 1996 found that 90 percent of the new money that flowed into equity mutual funds in 1995 went to funds with four- or five-star ratings from Morningstar.[14] In 1997, *SmartMoney* named Morningstar's president Don Phillips as the fourth most influential individual in the industry (after Michael Price, Jack Bogle, and Ned Johnson). "It's no wonder fund companies get so worked up over Morningstar ratings," *SmartMoney* commented. "If a fund can get four or five stars ... it's almost assured a big rush of cash. In the five months since Invesco started advertising the five stars earned by Strategic Financial Services, its assets have grown by 37 percent."[15]

In 2002, Morningstar revamped their fund rating process—the ubiquitous star rating —in order to make it less sensitive to market movements, and more reflective of the fact that investors were far more sophisticated than they were when the star rating was introduced in 1985. The original star rating compared funds within extremely broad peer groups. Domestic-stock funds of every stripe were compared with other domestic stock funds, for example, while all taxable bond funds were lumped together. That had an unfortunate side effect: When a particular style of investing was hot—like growth was in the late 1990s—a disproportionate share of funds within that style received four or five stars. It didn't matter if the manager was good or bad.

Morningstar's category rating, launched in 1996, assesses funds' risk/reward profiles alongside other offerings that practice a similar style. Because it helped investors separate managers who were truly skilled within their peer groups, the category rating quickly became a favorite of the Morningstar analysts and others.

The new star rating takes part of the old star rating (its emphasis on long-term performance) and part of the category rating (its emphasis on apples-to-apples comparisons) and merges them into a single rating. Rather than using four broad peer groups to rate funds (domestic stock, international stock, taxable bond, and municipal bond), as they did in the past, Morningstar's new rating compares funds with others in one of the 64 different Morningstar categories.

Aside from the switch to category-based peer groups, the basic framework for the original star-rating methodology remains intact. As in the past, the new rating provides a snapshot of a fund's historical risk/reward profile. It rates funds on a scale of one to five stars, and takes sales charges into account. Funds with less than a three-year track record are not rated.[16]

The Morningstar stars have become so widely accepted at least in part because they indicate the historical risk-adjusted performance of a fund in a straightforward, easily understood way. The consuming public has clearly embraced the star rating, much as it has the *Michelin* restaurant ratings.

Because funds use the categories as a basis for compensation, Lipper employs a relatively large number of narrowly defined categories—84 in all. In 1999, Lipper revised its categories for U.S. stock funds, in recognition that its old approach (based on prospectus language) was not sufficiently precise. Similar to Morningstar, Lipper changed to categories that reflect what the funds actually do. This caused a furor in some parts of the industry, since it resulted in a number of funds being reclassified, potentially affecting how funds stack up against rivals, and, therefore, how managers are compensated.[13] Table 4.3 shows the Lipper categories as of early 2005.

Table 4.3 Lipper Open-End Fund Classifications

U.S. Diversified Equity Funds	Mixed Equity Funds
Open-end Fund and Variable Insurance Product Classifications 1. Growth Funds (Large, Multi, Mid, and Small Cap) 2. Core Funds (Large, Multi, Mid, and Small Cap) 3. Value Funds (Large, Multi, Mid, and Small Cap) 4. Equity Income Funds 5. S&P 500 Index Funds 6. Specialty Diversified Equity Funds	28. Balanced Funds 29. Balanced Target Maturity Funds 30. Convertible Securities Funds 31. Flexible Portfolio Funds 32. Global Flexible Portfolio Funds 33. Income Funds 34. Ultra Short Obligation Funds
Sector Equity Funds	**Short/Intermediate-Term U.S. Treasury and Government Funds**
7. Environmental Funds 8. Financial Services Funds 9. Health/Biotechnology 10. Natural Resources Funds Real Estate Funds 11. Science & Technology 12. Specialty & Miscellaneous 13. Utility Funds 14. Telecommunication Funds	35. Intermediate U.S. Treasury Funds 36. Intermediate U.S. Government Funds 37. Short-Intermediate U.S. Government Funds 38. Short U.S. Government Funds 39. Short U.S. Treasury Funds
World Equity Funds	**Short/Intermediate-Term Corporate Fixed-Income Funds**
15. Canadian Funds 16. China Region Funds 17. Emerging Markets Funds 18. European Region Funds 19. Global Funds 20. Global Small-Cap Funds 21. Gold-Oriented Funds 22. International Funds 23. International Small-Cap Funds 24. Japanese Funds 25. Latin American Funds 26. Pacific ex Japan Funds 27. Pacific Region Funds	40. Intermediate Investment-Grade Debt Funds 41. Short Investment-Grade Debt Funds 42. Short-Intermediate Investment-Grade Debt Funds

Table 4.3 *(continued)*

General Domestic Taxable Fixed-Income Funds	General Municipal Debt Funds
43. Adjustable-Rate Mortgage Funds 44. Corporate Debt Funds A Rated 45. Corporate Debt Funds BBB Rated 46. Flexible Income Funds 47. General Bond Funds 48. General U.S. Government Funds 49. General U.S. Treasury Funds 50. GNMA Funds 51. High Current Yield Funds 52. Multi-Sector Income Funds 53. Target Maturity Funds 54. U.S. Mortgage Funds	62. General Municipal Debt Funds 63. High-Yield Municipal Debt Funds 64. Insured Municipal Debt Funds 65. Other States Intermediate Municipal Debt Funds 66. Other States Short/Intermediate Municipal Debt Funds 67. Single-State Municipal Debt Funds 68. California Short/Intermediate Municipal Debt Funds 69. Florida Intermediate Municipal Debt Funds 70. Florida Insured Municipal Funds 71. Massachusetts Intermediate Municipal Debt Funds 72. New York Intermediate Municipal Debt Funds 73. New York Insured Municipal Debt Funds 74. Pennsylvania Intermediate Municipal Debt Funds 75. Virginia Intermediate Municipal Debt Funds
World Taxable Fixed-Income Funds	**Money Market Funds (Taxable)**
55. Emerging Markets Debt Funds 56. Global Income Funds 57. International Income Funds 58. Short World Multi-Market Income Funds	76. Institutional U.S. Government Money Market Funds 77. Institutional U.S. Treasury Money Market Funds 78. Institutional Money Market Funds 79. Money Market Instrument Funds 80. U.S. Government Money Market Funds 81. U.S. Treasury Money Market Funds
Short/Intermediate Municipal Debt Funds	**Money Market Funds (Municipal)**
59. Intermediate Municipal Debt Funds 60. Short/Intermediate Municipal Debt Funds 61. Short Municipal Debt Funds	82. California, Connecticut, Massachusetts, Michigan, New Jersey, New York, Ohio, Pennsylvania, and Other States Tax-Exempt Money Market Funds 83. Institutional Tax-Exempt Money Market Funds 84. Tax-Exempt Money Market Funds

Source: Lipper, 2004

Approaches to Investment Decision Making

Few issues generate more heated discussion in investment management circles than do approaches to investment decision making. In a sense, this topic resembles religion—men and women of good faith can (and do) consider the same reality and come to diametrically opposed conclusions. In 1995, Bill

Griffeth published a book—*Mutual Fund Masters*—containing interviews with 18 well-known and eminently successful investment managers.[17] Reading this book, one is struck by the number of times that one of the masters flatly contradicts a prescription made by one of the other masters. One says you should start analyses of emerging markets with the government econometric reports, another says to ignore those reports. One says to pick common stocks by understanding the fundamentals of the companies themselves, another says to look at the patterns in the prices of companies' stocks. The list of examples goes on and on.

An exhaustive discussion of investment decision making alternatives, if indeed it is even possible, would itself fill a book. This section merely highlights a few of the major, commonly encountered approaches, to illustrate the range of possibilities.

Active versus Passive Management

Can any individual or group of individuals, even professional portfolio managers, consistently pick securities that are winners? That is the crux of the question that divides the proponents of active management from those of passive management. The passive management school's argument, made most visibly in Burton Malkiel's *A Random Walk Down Wall Street*, contends that financial markets are so efficient* that they make it impossible for active managers to consistently outperform market averages.[18] Passive managers therefore do not attempt to select individual securities, but rather match the composition of a segment of the market. Typically, they attempt to match a major benchmark index such as the S&P 500 or the Lehman Intermediate Term Government Bond Index. A passively managed fund (or index fund) can usually operate at a lower expense ratio than an actively managed one, because it requires no expenditures on portfolio manager expertise or research, and it minimizes trading costs.

Active managers attempt to outperform market averages using various investment techniques, succeeding sometimes and failing sometimes. The allure for the investor, of course, is the potential of finding a fund whose manager will succeed in outperforming the market during the period the investor holds the fund. At least one researcher analyzing mutual fund performance has found evidence that (1) some funds consistently outperform the market;

** Efficient in this context means that at any point the market has assimilated all the available information about a security and reflected this information in its price. An investor or portfolio manager cannot possibly pick undervalued stocks, since the market has already taken into account any information the investor or manager possesses (except for insider information, which could only be used illegally).*

and (2) sophisticated investors direct assets to these funds.[19] (Most academic research, however, tends to support the passive management argument.)[20] Actively managed funds typically have higher expense ratios than index funds, for the reasons cited earlier.

The argument between proponents of active and passive management has continued unabated for over 20 years. It has prompted both scholarly research and emotional name-calling. Any discussion here will certainly fail to resolve it. An interested reader can easily find numerous books and articles weighing in on either side of the argument.

Active equity fund managers employ a variety of investment strategies and styles to select the securities that they believe will outperform the market. They may base their investment decisions on analysis of the issuing companies, on the state of the financial markets, on economic trends, on patterns in stock prices, or on combinations of these factors. Active bond fund managers make their selections according to such factors as interest rate forecasts, the impact of securities on the maturity time span of the portfolio, and the credit quality of the issuer. The next few paragraphs describe some of the more prominent methods active managers take to select securities and construct their portfolios.

Top-Down versus Bottom-Up Portfolio Construction

The top-down manager starts the selection process by identifying general economic trends and incorporating them into specific market and economic forecasts. He or she then selects industries and companies that should benefit from those trends. The bottom-up investment manager considers individual stocks before industry, sector, country, and economic factors. This approach assumes that individual companies can prosper, even when the industry or economy is not performing well.

Growth versus Value Stock Selection

Growth and value managers represent two fundamentally different approaches to selecting common stocks. Growth investing attempts to identify companies that promise dramatic revenue or earnings increases. These companies are typically smaller to medium-sized firms that are expanding into new or existing markets or developing new products. For the most part, growth managers don't mind paying higher prices to get the right stocks and taking more risk to achieve greater return. Growth managers tend to do very well during the advanced stages of a bull market when investors become more aggressive, pushing the markets to new highs.

Value investing attempts to identify out-of-favor companies, whose stock has a good potential to increase in price. Value managers usually have a lower turnover of securities in their portfolios and assume less risk than growth-oriented managers. They tend to hold large cash positions at market peaks, when bargains are presumably rarer. In general, value managers do best when the economy is coming out of a slump and undervalued companies begin to recover.

Fundamental versus Technical Analysis

Fundamental analysis involves study of the issuing company itself—its financial statements and other quantitative data, plus qualitative assessments of factors such as the company's management, physical plant, and market presence. Based on the analysis of these fundamentals (and different managers have many different ways of going about these analyses), the manager estimates a value for the company's stock that can be compared to the current market price. If the manager finds that the current market price is lower than the computed value, then the stock is considered underpriced and a candidate for buying.

Technical analysts, sometimes called "chartists," focus on the details of quantitatively measurable data—on changes in the price of particular stocks or of short interest in the market, for example. They attempt to find patterns in past behavior that they can use to match to current patterns and thereby predict future price behavior. In recent years, some researchers have attempted to employ computer artificial intelligence (most often, neural nets) to perform these technical analyses, detect patterns, and predict price movement.

Stock Market Timing

Stock market timers (not to be confused with the more controversial "market timers" of mutual fund shares) attempt to predict how the prices will trend for individual stocks, stock groups, or the market as a whole. They attempt to determine the right times to buy and sell by analyzing technical factors behind the supply and demand for stocks, such as volume and price, often using charts or computer programs.

Asset Allocation

Asset allocators focus on the anticipated risks and returns of the various asset classes—stocks, bonds, and cash—given certain assumptions about economic growth, interest rates, market valuations and other fundamental indicators. They continually adjust their portfolio composition among the

classes, and individual security selection is accorded secondary importance. The C/Funds, for example, employ an asset allocation strategy, moving holdings between equity and fixed-income securities according to forecasts of economic conditions.

Group Rotation

These managers try to find stock groups that will outperform others at a particular time. They analyze macroeconomic trends and how a particular economic cycle may unfold and affect various industrial sectors. (For example, they might examine economic forecasts involving unemployment and disposable income to make judgments on how companies producing consumer durable items might fare.) They then concentrate their investments in those sectors that the trend should benefit.

Momentum Investing

These investors attempt to find and exploit factors that are currently pushing or about to push a stock's price upward. Some momentum investors focus on the issuing companies—their earnings, cash flow and other statistics, and especially any surprises about these. Other momentum investors look at the stock prices themselves, emphasizing the degree to which a stock is outperforming (or underperforming) the market index or other stocks in its group.

Every mutual fund is free to select a style that its managers believe will best meet the investment objectives. The fund is obligated, however, to disclose this choice in the prospectus and SAI, and to adhere to its stated principal investment strategies as it operates.

Implications for Operations

The next two chapters will focus on the fund manufacturing process, the investment management front- and back-office operations, as depicted in Figure 4.1. How a fund company goes about carrying out these functions, particularly those of the front office, is heavily conditioned by the decisions it has made about the fund's investment objectives and philosophy. Two aspects of front-office operations are particularly affected.

1. *Investment analysis and decision making.* The amount and type of research and analysis investment managers carry out vary tremendously from manager to manager. At one end of the scale, passive managers make no attempt whatsoever to analyze individual securities. At the other end, active managers undertake a wide range of quantitative and qualitative analyses to identify particular securities to buy or sell. The nature

of these analyses, and therefore the tools and type of information used, depend on the asset types the manager is considering and the investment decision making style he or she employs.

2. *Trade order management.* As we will see in the next chapter, trading in equity securities differs significantly from trading in fixed-income securities. In addition, the investment management philosophy is the primary determinant of the rate at which a fund manager trades. For example, passive managers do relatively little trading, while aggressive active managers may turn their portfolios over several times per year. In another example, the trading pattern for a manager who selects individual stocks based on analyses of company fundamentals will differ greatly from that of a manager who rotates the portfolio into and out of sectors.

   Back office functions are less affected by investment strategy, tending to be more standardized than those of the front office. They differ mostly according to the asset types the fund handles. For example, accounting entries for bonds differ from those of stocks, and foreign securities require different accounting than do domestic issues. Every fund company must perform or arrange for all the basic back office functions—settlement, custody, accounting, and reporting—regardless of how the portfolio manager makes investment decisions.

chapter 5 | The Investment Management Front Office

The fundamental reason for the huge success of mutual funds was a simple promise: performance....You could turn your money over to a [fund manager] confident that his hard work, meticulous research, and peculiar genius would deliver consistently superior returns.

—David Whitford[1]

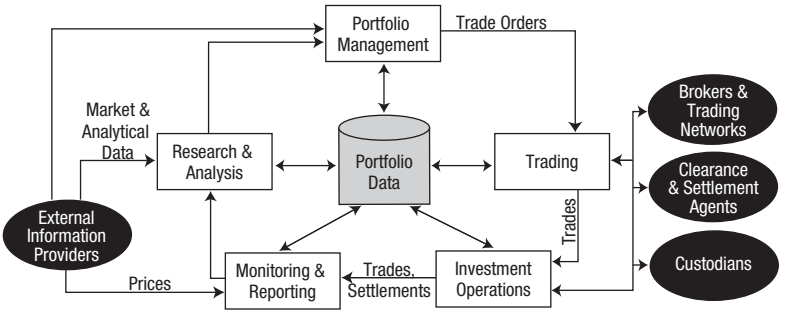
The Investment Management Cycle

In pursuit of performance, active mutual fund managers (indeed, all active investment managers) carry out a never-ending cycle of analyzing investment opportunities, making buy and sell decisions, ordering, executing, and settling trades, maintaining and analyzing portfolio records, reporting the results of their activity, and launching back into the decision process. (Passive managers do all of this except the analysis and decision making.) Figure 5.1 graphically depicts the components of this investment management cycle. The investment management organization—the fund's investment advisor—employs people in several distinct roles. These people interact with one another as well as with systems that store and maintain data about the portfolio of securities held by the fund. They also interact with external parties—information providers, brokers, trading partners, depositories, clearing houses, and custodians—as they carry out the investment management cycle. Collectively, their activities comprise the process of investment management and are the focus of the next three chapters.

Industry observers commonly divide the steps in the investment management cycle into two main components:

- *Front-office functions*, which involve making investment decisions and implementing them via trading; and

Figure 5.1 The investment management cycle.



- *Back-office functions*, which comprise the administrative, record keeping, and reporting activities that occur after the trade is made.*

Front- and back-office functions differ fundamentally in nature. Within a management company, they are performed by completely different groups of people, and are often performed by completely separate organizations. Some mutual fund management companies do them all. In some cases, the management company performs the front-office functions (portfolio decision making and trading) internally, and contracts out back-office functions to a service provider. In other cases, fund managers contract with separate subadvisory organizations to perform some or all of the front-office functions.

This chapter focuses on the investment management front office, and what it does for a mutual fund. (Chapter 6 covers back-office functions.) Front-office functions fall into two major groups. First, investment managers must decide what to buy and sell. Active managers engage in research and analysis to identify securities that are and aren't attractive, match these to the needs of their portfolio to invest or produce cash, and order trades. Passive managers do no research—the makeup of a passive portfolio of securities is determined by the makeup of the benchmark it mirrors. Both types of managers strive to make their funds' portfolios of securities conform to their investment objectives. Second, once they have decided, investment managers trade. Both active and passive managers engage in trade order management—the process of creating orders to buy or sell securities, transmitting them to the appropriate brokers or trading networks, and executing trades with these counterparties.

These front-office activities are the primary determinants of how well a fund performs relative to the market. Active fund managers hope to outper-

* *Some in the industry also identify an investment management "middle office," concerned with reporting and control of trade activity. Since there is not universal agreement as to the definition of the middle office, we do not use it here.*

form the market by astute securities selection and efficient trading. An active manager succeeds to the extent that he or she identifies the right securities to buy (or sell) and executes trades to buy (or sell) them at favorable prices. Passive managers aim to match the market performance (as defined by the performance of the benchmark) with as little cost drag as possible. A passive manager succeeds to the extent that he or she efficiently matches the fund to its benchmark, particularly when cash must flow in or out of the portfolio.

Investment Analysis and Portfolio Management

Investment analysis lies completely within the realm of active management. Industry observers describe the analysis and decision-making activities investment managers carry out with a mix of somewhat overlapping terms. Research generally refers to the process of gathering data from various sources that can help identify buy or sell opportunities. Analysis refers primarily to processing that data into useful information, although some people use the term broadly to include research. Portfolio management, narrowly defined, means making buy and sell decisions based on the results of research and analysis and the current state of the fund's portfolio of securities (and this is how we use the term in this chapter). However, some people use the term portfolio management much more broadly, to encompass all the activities that result in portfolio decisions, including research and analysis. All these functions collectively comprise the investment advisor's role.

Different fund managers organize their front office functions differently. In many firms, especially larger ones, the analysts, portfolio managers, and traders are all separate individuals or teams. In some cases, however, portfolio managers prefer to do their own analysis and research. In other cases, particularly among fixed-income funds, portfolio managers may do their own trading. Some of the variation stems simply from personal preference, some from economics (e.g., very small managers can't afford separate individuals for the functions). We will discuss the functions in this chapter as though they are performed by separate individuals, but in reality, this is not always the case.

Sometimes, one fund has one portfolio manager, as when Peter Lynch was the manager of the Magellan Fund. Many fund companies assign teams of managers to their funds, and some managers and teams handle multiple funds. The fund's prospectus explains how the fund's portfolio management responsibilities are assigned. However the responsibility is structured, the portfolio manager exercises the investment advisory function for the fund, deciding what to buy or sell and when to do so. Active portfolio managers make their buy and sell decisions for two reasons:

1. to respond to cash flows to or from the fund caused by shareholder purchases and redemptions; and

2. to improve the performance of the fund by taking advantage of opportunities they perceive in the securities markets.

Passive portfolio managers must respond to shareholder cash flows, but make no trades in an attempt to improve performance—since they do not believe that identifying market opportunities is possible, their funds tightly conform to the benchmarks. However, they do buy or sell securities to bring the fund back in line when the benchmark itself has changed as, for example, when Laboratory Corporation of America Holdings (ticker symbol LH) was added to the S&P 500 on October 29, 2004, replacing South Trust Corp.

Equity Analysis and Portfolio Management

In actively managed funds, equity analysts attempt to find market opportunities for the portfolio manager. The analysts search for particular stocks or groups of stocks that are either underpriced (buy opportunities) or overpriced (sell opportunities) by the market. Analysts tend to focus on subsets of the overall market, such as companies within certain industrial sectors, and, in some cases, work a specific list of candidate stocks. Ultimately, the analysts issue investment recommendations about particular stocks, similar to those that analysts working for brokerage firms produce for the firms' clients. They pursue a variety of approaches to making these identifications, ranging from the purely qualitative to the purely quantitative.

At the qualitative end of the scale stands the fundamental analyst, who attempts to understand the state of a company so as to make predictions about its future earnings. Fundamental analysts not only study the reports published by and about a company, but also interview its management, and even visit the company to observe operations. They study the industry in which the company operates, reading trade journals and attending conferences. They evaluate how well the company stacks up against others in its industry, and try to anticipate how the industry itself is likely to perform. For example, a fundamental analyst might recommend a particular software company as a potential buy, because research shows that it has good products, sound management, a compelling business plan, and solid financing, and because it is in a segment of the industry that the analyst believes will experience strong growth. (The recommendation is even stronger if the analyst can detect a reason why the market mistakenly undervalues the company.) Fundamental analysts usually specialize in specific industries or sectors because of the industry expertise their approach requires. Neuberger Berman, for example, explaining how it selects stocks for its Manhattan Fund, describes its fundamental analysis approach: "…. the managers analyze such factors as: financial condition (such

as debt-to-equity ratio); market share and comprehensive leadership of the company's products; earnings growth relative to competitors…"[2]

Quantitative analysts stand at the opposite end of the spectrum from fundamental analysts. Technical analysts, sometimes called "chartists," study patterns in prices and volumes within the stock market itself to try to predict how a company's stock may move in the future (before the widespread use of computers, technical analysts spent much time drawing graphic charts of prices). Other quantitative analysts evaluate stocks using computer models that attempt to predict stock prices, or identify over- or underpriced stocks, by looking for correlation between the stock prices and one or more predictor variables (such as economic indicators or the issuer's financial measures). For example, the prospectus for Quant Fund's Small Cap fund describes its quantitative approach:

> *A quantitative approach relies on financial models and computer databases to assist in the stock selection process. Proprietary computer models are capable of rapidly ranking a large universe of eligible investments using an array of traditional factors applied in financial analysis, such as cash flow, earnings growth, and price to earnings ratios, as well as other non-traditional factors.*[3]

Not surprisingly, many if not most fund groups follow neither purely qualitative nor purely quantitative approaches. Many, for example, use some quantitative techniques to develop a large list of candidate stocks for consideration, and then reduce that to a smaller list of stocks to recommend by conducting more qualitative analyses. The advisors for the Goldman Sachs CORE Small Cap Equity Fund do this. To pick stocks, they "use the Goldman Sachs' proprietary multifactor model, a rigorous computerized rating system, to forecast the returns of securities held in the Fund's portfolio." In addition, "the Investment Advisor will monitor, and may occasionally suggest and make changes to, the method by which securities, currencies, or markets are selected for or weighted in a Fund."[4] In other words, once their model suggests that a stock might be a good buy, they take a hard look at the company's fundamentals to see whether they believe it really is.

The portfolio manager uses the analyst's recommendations as one input in making buy and sell decisions. He or she balances these recommendations against the fund's cash flow needs and current composition of the fund's portfolio of securities. (Allstate may be a great buy, for example, but the manager might have to forego it if the portfolio is already overweighted with insurance stocks.) Portfolio managers operate under constraints from several sources.

- *Regulations.* The 1940 Act and subsequent regulations set boundaries on what portfolio managers can do. For example, a registered fund cannot

own more than five percent of the outstanding stock of a company, no matter how attractive a buy that stock appears to be.

- *Prospectus rules.* The portfolio manager must abide by the guidelines laid out in the fund's prospectus. Some prospectuses are very constraining—for example, the Hennessy Balanced Fund follows the "Dogs of the Dow" investment strategy* that requires the fund hold only those ten stocks within the Dow Jones Industrial Index that currently have the highest dividend yields. Other funds allow the portfolio manager great leeway to pursue performance—for example, the Massachusetts Investor Trust prospectus says the fund holds mostly equities "under normal conditions," and "generally" invests in large-cap stocks, but makes no guarantees.[5] And Legg Mason opened a "go-anywhere" fund in 1999 (Legg Mason Opportunity Trust) that industry observers believed was specifically designed to allow a particular high-performing portfolio manager to buy any sort of securities he saw fit without being accused of "style-drift."[6]
- *Policies.* Different management companies set different levels of constraints as a matter of policy. In some fund families, the portfolio managers can do just about anything they want to do that isn't forbidden by the regulations or prospectus. At the other end of the scale, some management companies subject their portfolio managers to strict investment policies. Take the General Electric Funds, for example. In 1999, the *Wall Street Journal* described their "taut guidelines" for stock selection.[7] One fund could only buy stocks with a price/earnings to growth ratio of less than one. Another fund had to maintain all its sector weightings within two percentage points of the weightings within the S&P 500. These (and other GE rules) are neither regulatory nor prospectus requirements, but rather prescriptions set by GE Funds' management.

Compliance monitoring, described in the next chapter, concerns itself with ensuring that the manager is following all the relevant rules.

Fixed Income Analysis and Portfolio Management

As the ICI, Morningstar, and Lipper categorization schemes in the last chapter illustrate, a fixed-income fund usually concentrates on a particular sector of the debt securities market. A fixed-income sector is typically defined by type of issuer (e.g., U.S. Treasury, federal agency, corporation, municipality) and the average maturity of the holdings (e.g., short-term, intermediate-term, long-term). Fixed-income funds can be either actively or passively managed. Passive fixed-income funds simply mirror an index that represents their

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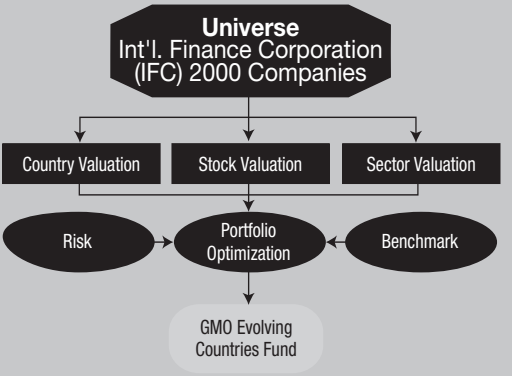
**Michael B. O'Higgins popularized this "Dogs of the Dow" strategy, which several funds pursue, in his 1990 book* Beating the Dow. *It advances the notion that the ten highest-yielding stocks in the Dow are depressed in price and will bounce back.*

The Many Ways to Skin a Cat

Morningstar divides the world of mutual funds into over 60 categories, based on the funds' investment objectives and approach. Even within a category, however, funds have plenty of room to make investment decisions in their own particular ways. Consider, for example, the funds in Morningstar's Emerging Markets Stock Funds category. Most if not all of them have precisely the same investment objective in their prospectuses: long-term capital appreciation derived from investing in stocks in emerging-market countries. Most of them define emerging-markets based on the World Bank's per capita income definition or a similar measure. Most of them state that they will hold primarily equity securities spread among several countries, but reserve the right to move to fixed-income securities when conditions warrant. After that, they start to diverge. Examination of a few prospectuses reveals quite a bit of variation in how exactly they go about pursuing that investment objective.[‡]

- The Legg Mason Emerging Markets Trust starts with a list of 1,000 potential stocks from which to choose. The investment advisor uses a combination of "on the ground" fundamental research and quantitative valuation techniques to choose from among the stocks on the list. In parallel with stock selection, management allocates the port-folio among countries based on a separate analysis that "merges quantitative and fundamental approaches."
- Management of the Dreyfus Premier Emerging Markets Fund searches for value stocks—ones with low price-to-book ratios, price-to-earnings ratios, or other stated characteristics of undervalued stocks. It employs a bottom-up style, "emphasizing individual stock selection rather than economic and industry trends..."
- The American Century Emerging Markets Fund follows a growth investment strategy to select stocks. First, the managers use a bottom-up approach, basing their decisions on the "business fundamentals of the individual companies." In addition, "fund managers also consider the prospects for relative economic growth among countries or regions, economic and political considerations…when making investment decisions."
- Grantham, Mayo, van Otterloo & Co. even draws the investor a picture of how its managers pick securities for the GMO Emerging Countries Fund, describing each step in the process. They analyze countries, industrial sectors, and companies in parallel, and then bring it all together in a portfolio construction model that incorporates risk considerations.

Fund Investment Process



[‡] All the information and quotations are taken from the prospectuses for the funds current in 2004.

sector—for example, the Vanguard Short-Term Bond Index Fund seeks to replicate the performance of the Lehman Brothers 1- to 5-Year Government/Corporate Bond index. Active fixed-income managers attempt to outperform the market in which they compete by picking bonds and/or sectors that are likely to outperform within the portfolio's investable universe.

There are three common approaches used by fixed-income analysts and managers to pursue this goal. They are duration adjustment, relative value analysis, and issue selection. At the heart of all three approaches is an understanding of the spectrum of U.S. Treasury bond yields that represent the risk-free alternative to all other debt instrument investments. These yields, plotted against time (usually for Treasury securities ranging from three months to 30 years in maturity), combine to form the Treasury yield curve—the basis of the entire U.S. fixed-income market.

- *Duration adjustment.* Successful duration adjustment strategy depends on the accurate prediction of the future direction of interest rates. If a manager expects the economy's general level of interest rates—and, therefore, the general level of bond yields—to fall (typically as a result of macroeconomic forces such as weak economic growth or a Federal Reserve policy bias toward easier credit conditions), he or she will lengthen the average maturity of bonds held in the portfolio. This also increases the portfolio's average duration, a proxy, expressed in years, for the average length of time that a bond investment is outstanding (and a measure of the bond's sensitivity to interest rate changes). Conversely, if the manager expects yields to rise, longer-maturity bonds will be replaced with shorter-maturity securities, and the portfolio's average duration will be shortened.

  A manager may apply duration adjustments to the entire portfolio, or only within a particular maturity segment (short-, intermediate-, or long-term yields), when yield changes are not expected to occur in parallel fashion along the entire curve. In all cases, however, duration adjustments are made relative to the portfolio's performance benchmark. Overall, a portfolio's duration will be positioned short of, neutral to, or long of the duration of the market index by which its performance is measured. The successful application of interest rate forecasting and duration adjustment is extremely difficult but can produce spectacular performance results.
- *Relative value analysis.* Fixed-income portfolio managers often employ relative value analysis to choose sectors and/or individual securities to hold in a portfolio. Relative value measures the divergence of yield spreads from average historical relationships. For instance, if a portfolio's investment guidelines permit investing in the U.S. Treasury and

corporate bond sectors, a manager will follow the historical relationships of Treasury and corporate bond yields at different maturity points along the yield curve. If the corporate yield spread widens (increases) from its average at, say, the 10-year maturity point, the manager will sell Treasury holdings and buy corporate bonds of similar coupon and maturity. Stated another way, the manager noticing the wider yield spread is also recognizing that corporate bonds have underperformed Treasuries, and are therefore historically "cheap" to Treasuries. The manager's reaction will be to sell Treasuries and buy corporates, waiting until the relative yield relationship has returned to its historical average (meaning that corporates by then will have outperformed Treasuries) before reversing the trade. This strategy is also known as "sector rotation." Active relative value managers employing sector rotation seek to profit from repeatedly exploiting even tiny aberrations in historical yield relationships.

- *Issue selection.* A portfolio manager uses issue selection to identify individual bond issues with characteristics (good or bad) that have not been fully reflected in a bond's yield (or, in relative value parlance, in the spread between the bond's yield and the yield of a corresponding Treasury security). From an optimistic perspective, these characteristics might include the issuer's strengthening corporate cash position or undervalued fixed assets, or a likely upgrade in credit rating as provided by one of the major rating agencies such as Moody's or Standard & Poor's.

A debt security's yield relative to Treasuries is determined in part by its credit risk. The greater the risk of default, the higher the spread a corporate bond's yield must be versus the alternative risk-free Treasury yield to attract buyers. If a fund buys a bond that subsequently receives a credit upgrade, the fund's performance benefits from the tighter spread of the corporate's yield to the underlying Treasury; that is, the bond's price has changed (up or down) relatively better than the Treasury's price. As an example, Neuberger Berman describes how its fixed-income analysts do exactly this. They "look for securities that appear underpriced compared to securities of similar structure and credit quality, and securities that appear likely to have their credit ratings raised. In choosing lower-rated securities, the managers look for bonds from issuers whose financial health appears comparatively strong but that are smaller or less well known to investors."[8]

Prepayment analysis is another component of issue selection. Many debt securities have provisions for being retired before their stated maturity dates. Corporate bonds may be structured with call provisions that give the issuer the right, at its discretion, to redeem the issue ahead of

its stated maturity date. Mortgage-backed securities may be partially or entirely retired early if the holders of the underlying mortgages repay those mortgages early (as homeowners typically do when interest rates fall and refinancing becomes popular). All else equal, debt securities with prepayment risks must offer greater yields to offset these risks. Prepayment analysis attempts to discover issues for which the real prepayment risk is less than the perceived risk on which the yield is based. Analysts for a fund that holds mortgage-backed securities, for example, study the characteristics of the mortgages underlying the securities (What kind of homes are they? What's the state of the economy in that region? What pre-payment assumptions were used when the mortgages were securitized?), attempting to find ones that they believe are held by homeowners less likely to refinance than generally believed.

Two types of analysts are most commonly encountered in fixed-income investment management organizations. *Credit analysts* resemble the fundamental analysts of the equity side, in that they study the fundamental situation of the issuer to determine the risk of default associated with the security. Like the equity analysts, they analyze financial results, management quality, industry trends, economic factors, and anything they think sheds light on the issuer's ability to meet the interest and repayment obligations of the debt security. For example, the advisor for the Seligman High-Yield Bond Fund selects bonds issued by "companies that it believes display one or more of … strong operating cash flow and margins, improving financial ratios (i.e., creditworthiness), leadership in market share or other competitive advantage, superior management, and attractive relative pricing."[9] In other words, the fundamentals of the issuing company indicate that this bond is a good credit risk.

Quantitative analysts develop and run mathematical models to help them understand the behavior of both individual securities and the fund's portfolio as a whole under different sets of assumptions. Much of what they do is analyze scenarios—what would happen to a specified security or portfolio based on changes in interest rates, prepayment speeds, or other factors. They also look for patterns in historical data, not only data on securities prices, but also macroeconomic and demographic variables. The quantitative analyst attempts to point out opportunities to the portfolio manager, and also to quantify the risk associated with a particular strategy. At Pacific Investment Management Company (PIMCO), for example, fixed-income analysts continuously run complex programs that examine the interest spreads among large numbers of corporate, Treasury, and mortgage-backed bonds to identify bonds that offer attractive yields.[10] Analysts sometimes run such complex and esoteric models that the industry has come to use the term "rocket scientists" to label them.

What Does It Hold?

The only way to really check whether a fund is complying with the investment policies and strategies described in the prospectus and statement of additional information is to see exactly what the fund holds. Indeed, one of the reforms embedded in the 1940 Act was a requirement that fund holdings be disclosed. Legally, however, a fund only has to do this twice a year, listing the portfolio holdings as of the close dates for its semi-annual reports. And most funds stop at that level of disclosure.

Fund managers argue that frequent disclosure is an all-around bad idea. The whole point of a mutual fund, they say, is to let a professional investment manager do something the average individual is not equipped to do. Second-guessing the manager by examining the holdings is inconsistent with this philosophy. Even worse, frequent disclosure might allow other players in the market to anticipate, and therefore counteract, the investment advisor's strategy (a practice termed front-running). "The less awareness the market has of what you do as a portfolio manager, the better," says one industry consultant.[11]

Some funds do respond slightly to the demands of pension plan sponsors whose participants can select the funds as investment options in their 401(k) plans. These institutional asset-management clients (and their consultants) are accustomed to getting quarterly reports about their investments, and most fund groups accommodate this schedule. Standard & Poor's Corporation also requires funds to provide quarterly reports of their holdings to it, in confidence, for the fund to be eligible to be on S&P's list of Select Funds. For most individual investors in most funds, however, the norm remains semi-annual reports with data that may be a month old when published.

A few smaller funds have attempted to take advantage of this pattern, and differentiate themselves by frequent disclosure. As far back as 1995, GIT Investment Funds (sold in 1998 to Madison Investment Advisors) began displaying its portfolio holdings on the Internet and updating them daily, an action that drew much attention in the press. A few other small funds have followed suit since then. The Thornburg Funds, for example, put holdings on their Web site but take steps to prevent front-running. They only put a new holding on the site when they have completed all the buying they are going to do, and remove it only when they have completely liquidated the position.

Like the equity manager, the fixed-income portfolio manager balances the analyst's recommendations and findings, the fund's cash flow needs, and the current portfolio structure. When deciding which securities to buy, the portfolio manager considers not only which specific issues offer opportunities for superior performance, but also what their addition would do to the overall risk exposure of the fund. For both analysts and portfolio managers, the fixed-income security decision-making process is one of continually asking,"What if?" Answering the "what if" question involves running computer programs that calculate various portfolio measures, such as duration and average weighted maturity, under various scenarios.

Fixed-income portfolio managers also have to comply with the same sorts of regulatory, prospectus, and policy constraints as do equity managers.

Data and Tools

Analysts and portfolio managers have acquired an increasingly sophisticated set of data feeds and tools to support their research and analysis activities. Virtually everyone in the investment management front office has a personal computer "desktop" (sometimes more than one) loaded with systems that deliver data and functions to support investment analysis. These include:

- current prices for securities, typically from information vendors, who get them from exchanges, OTC markets, and dealers;
- news feeds, both text and video, to keep apprised of the latest happenings in the business world;
- earnings estimates, research reports, and other analyses generated by researchers and analysts working for brokerage firms;
- large, centralized securities databases, containing information about both securities (historical prices, dividends, yields, etc.) and their issuers (financial figures, ratings, ratios, etc.);
- statistical analysis software, that enables the analyst to derive financial ratios, variances and standard deviations, and regression equations from the data;
- modeling packages that enable the analyst or portfolio manager to analyze the behavior of a portfolio under certain assumptions, and compare it to model portfolios or benchmarks.

Trade Order Management

The activities of the analysts and portfolio managers culminate in decisions to buy or sell securities. Trade order management refers to the set of activities undertaken to carry out these decisions. The portfolio manager generates a trade order—an instruction to buy or sell a specific issue or type of issue. (Some fixed-income trades are specified in terms of attributes—for example, "We want to buy $25 million worth of a AAA grade 10-year corporate bond, at a yield spread of no more than 35 basis points to the 10-year U.S. Treasury issue.") The portfolio manager gives this order to the firm's traders for execution.

In industry parlance, mutual funds make up part of the *buy side*, the institutions that acquire securities to hold in a portfolio that serves a purpose, such as the mutual fund's purpose of providing a pooled investment vehicle for shareholders. Other buy-side participants include pension funds, insurance companies, bank trust departments, and corporate treasury departments.

Broker dealers and other intermediaries belong to the sell side. Sell-side firms buy and sell securities primarily to make money via the transactions themselves, as when a broker charges a commission for executing a stock trade. Sell-side firms sometimes take positions in securities (that is, buy them for their own account with their own capital), but only because they hope to sell the holding at a profit. Of course, some firms participate on both sides—Merrill Lynch, for example, is an enormous broker, but it also manages large pools of assets in its proprietary mutual funds and unit trusts.

Traders who work for the fund's investment advisor are known as buy-side traders. The buy-side trader takes the order from the portfolio manager and interacts with the sell side to complete it on as favorable terms as possible. Favorable terms include a good price (as low as possible when buying and as high as possible when selling) and a reasonable commission charge. The success with which the trader carries out this task can have a significant influence on the fund's performance.

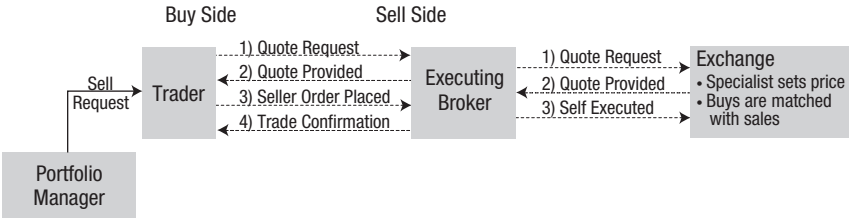
Developments in the securities markets in the United States over the past few years have made the buy-side trader's task increasingly complex. Given a trade order, the mutual fund trader must decide how to work it to get best execution. (Best execution is another term to describe the most favorable combination of price, commission, and other services.) The trader must decide where and how to place it, and what broker (if any) to use.

Trading Venue

The evolution of the U.S. capital markets over the past few years has given today's institutional buy-side trader a range of options for placing a trade order. On both the equity and fixed-income sides of the market, rapidly advancing technology is dramatically changing the way trading is done in the United States. Since U.S. securities trading is so fluid, the descriptions and examples below cannot be exhaustive or definitive—instead, they serve to illustrate the types of alternatives the fund trader must manage.

Exchanges: Equity products—primarily common and preferred stocks—can be traded in three ways: on an exchange, over the counter, or via a crossing network. Exchanges, such as the New York Stock Exchange (NYSE), the American Stock Exchange (AMEX) and regional exchanges, have traditionally embodied auction markets—central physical locations where people interact face to face to execute deals. Each exchange has market makers, or specialists, whose job it is to ensure that there is a maket in a particular stock or stocks. The specialist must buy the stock when no one else will, thus providing liquidity. Brokers, whose firms must be members of the exchange, take customer orders

Figure 5.2 Equity trade executed on an exchange.



to the specialist. Figure 5.2 shows the flow of trade execution processes for a trade in an exchange-listed stock.

A fund trader may send an order to the NYSE by telephone or electronically to a floor broker, or electronically to a specialist. Which method a fund trader chooses depends on the size of the order and the technology in place at the fund's investment advisor. Traditionally, a fund trader telephones his or her order to a sell-side firm that is a member of the exchange and has brokers on the exchange floor. The order request is written on a floor order ticket and handed to a floor broker who walks over to the booth of the specialist for the particular security. The method is still in wide use, particularly for large orders where the fund trader wants the order to be "worked" on the floor. The floor broker can observe the dynamics around the specialist's booth, and choose the best time to enter the bidding. All trades completed via a floor broker are captured via an NYSE automated system, but the brokerage firm must call the originating fund trader to tell him or her how the order was filled (e.g., number of trades, quantity of each trade, price).

The fund trader may choose to route the order electronically to the floor broker, or even directly to the specialist. These methods require systems that connect the investment advisor's trade order management system with systems within the sell-side brokerage firm. This electronic ordering can eliminate errors when recording the request on a ticket, and assists the floor broker in managing open orders. However the trade is placed, buy-side firms usually pay for execution of exchange-listed stocks via an explicit commission paid to the sell-side brokerage firm.

Corporate bonds can also trade on an exchange if the issuing company is listed, which implies that the company has met capital and other requirements prescribed by the exchange. Registered mutual funds' use of derivative securities is largely limited to futures and options. These still trade primarily on exchanges via open outcry auctions, although this is changing, particularly in Europe. In 2003, however, these instruments accounted for less than one percent of the assets of U.S. mutual funds.[12]

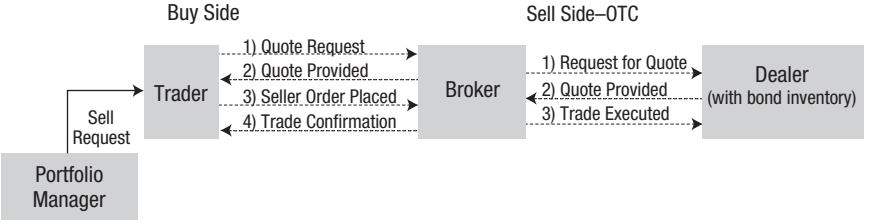
Over the counter (OTC): Until 1971, the OTC market was simply the process of Wall Street dealers trading shares of stocks not listed on an exchange. In 1971 the National Association of Securities Dealers (NASD) created NASDAQ (NASD Automated Quotation), a network of telephone lines and computer systems to support this activity. The system displayed quotes in trading rooms around the country, and dealers called each other via telephone to execute trades based on these quotations.

Unlike exchange markets, the OTC market has no specialist as the single entity through which all buy and sell orders for a given security must pass. Instead, competing market makers stand ready to complete transactions with a firm that enters a trade order. Mutual fund traders typically go directly to one of the market makers for a stock they wish to trade. When a fund does go through a broker on the OTC market, it typically does not pay an explicit commission. The intermediary makes its money through the spread between the bid and offered price for the security. For example, the dealer might match someone willing to sell 10,000 shares of Happy Kids (NASDAQ: HKID) at $10^1/_4$ per share to the fund who would pay $10^3/_8$ per share, with the dealer keeping the one-eighth per share for compensation.

The trading of fixed-income products has largely evolved in the over-the-counter market, a network of brokers and dealers who act as agent or principal in the purchase or sale of securities. Compared to equity securities trading, fixed-income trading remains largely manual, with buy-side traders telephoning or e-mailing sell-side firms to strike deals. Figure 5.3 shows an example of OTC fixed-income trading—a fund sells a bond.

Electronic trading networks: The basic notion of matching buyers and sellers directly via an electronic network has been around at least since 1969, when the network now known as Instinet was created. However, it was only with the adoption of liberalizing SEC rules in early 1997 that these alternative trading systems really took off. On January 20, 1997, the SEC required NASD to give electronic communications networks (ECNs) access to NASDAQ trading and

Figure 5.3 Sample bond trade flow.



quotation systems. ECNs are computerized trading systems into which subscribers place limit orders—orders to buy a stock subject to a maximum price, or sell it subject to a minimum price. The system attempts to match buyer with seller, and, if it can do so, the trade is executed.

The major attractions of the ECN are the elimination of the middleman cost in the transaction, and the anonymity the system provides. In theory, a fund places its order on the appropriate ECN, where a counterparty finds it and agrees to execute the trade.

At the end of 2003, ECNs were still primarily associated with NASDAQ, handling around 40 percent of the trade volume there. However, since most orders for listed stocks were still executed on the floor of the NYSE, ECN penetration of that trading volume was only a few percentage points.[13]

ECNs are also emerging to support the online trading of fixed-income products. The variety of solutions is not as robust as for equity products, but solutions are rapidly emerging. As of November 2003, the Bond Market Association identified "77 electronic, fixed-income trading systems operating in the U.S. and Europe in late 2003 versus 81 in 2002 and 11 in 1997."[14] However, in late 2004, the *Wall Street Journal* reported that electronic trading of junk or "high-yield" bonds is still somewhat in its infancy.[15]

In both equity and fixed-income securities, the trend is moving more and more trading to electronic networks of various types, and the face of securities trading in the United States is likely to continue to change. In 2004 the New York Stock Exchange (NYSE) developed plans to allow for a combination of floor and electronic trading.

International trading: Many funds invest in securities issued outside the United States, and must therefore trade in the associated venues. Exchanges outside of the United States have made much greater progress toward shifting to electronic markets than have the U.S. exchanges, but few U.S. buy-side firms are directly connected to the foreign exchanges. Funds handle foreign security trading in several ways. For a fund that does relatively little trading in foreign issues, the advisor may just use U.S. brokers with which it has relationships, and allow them to deal with the foreign brokers or exchanges. If the advisor trades in a particular market frequently enough, it may deal directly with foreign brokers that serve that market (for example, the buy-side trader in New York may simply call a broker in Tokyo, Hong Kong, or London). Some investment advisors have staff physically present in foreign locations. AMVESCAP, for example, the parent of the AIM and Invesco fund families, has investment management operations in several foreign countries, handling foreign trading for the funds. Finally, a fund may contract with a foreign sub-

advisor for international portfolio management and trading, as Vanguard does with Schroder Capital Management and Baillie Gifford Overseas, Ltd. for its International Growth Fund. As of 1998, 32 percent of all international stock funds were subadvised in this way,[16] although Strategic Insight data in 2004 suggest that this percentage had fallen to the low twenties.[17] Which approach a particular fund chooses depends on the size of the fund and the management company, as well as the management company's experience in dealing with foreign markets.

Broker Selection

A trader may decide to place an order with a sell-side broker for a number of reasons. It may be the only way to get liquidity (i.e., to find a ready buyer or seller). Electronic networks all depend on matching buyers and sellers being on the network simultaneously, something that may not occur for thinly traded issues. Brokers can seek out counterparties for a trade, or even use their own firm's capital to help complete the trade. For large orders for a given issue, this use of the brokerage firm's capital may be necessary to complete the trade. When a fund wishes to sell a larger block of a stock than the market can easily assimilate, the brokerage firm may assist by buying the block for its own account.

This is all part of getting best execution. When the fund decides to buy or sell an issue, it bases the decision upon an assumption of a particular buying or selling price. If the trade involves a large amount of the issue relative to normal trading volumes, or if other market participants are watching for the fund manager's decisions, there is a danger that it will generate a "market effect," that

Soft Dollars and the Cost of Trading

May 1, 1975 is known as May Day on Wall Street, for that was the day on which the SEC ended the practice of fixed commission rates for listed stock trades. It triggered an upheaval in the industry—the emergence of discount brokers, massive consolidation among old firms, and formidable negotiating power for institutional investors. And commission charges went down steeply. But by the late 1990s, they seemed to be stuck at something like 5.5 to 6 cents per share for mutual funds and other large institutional customers, and the SEC and others were beginning to question whether something was wrong. Commissions on ECN trades typically ran from one to two cents per share[18]—why were the funds paying so much more for so much of their trading business?

Mutual funds are obligated to seek "best execution" for their portfolio trades, but what exactly does that mean? It does not just mean getting the lowest possible commission

for a trade. A much bigger and more important part, most investment managers argue, is avoiding negative market impacts. As most investment professionals will quickly point out, paying two cents less per share in commission doesn't mean much if the poor execution of the trade resulted in an unfavorable price swing of a dollar per share. Funds also have to consider factors such as the broker's reliability, access to specific markets, willingness to extend capital, and the value of the products and services they provide.

The value of products and services provided raises the issue of soft dollars. Soft dollar services stem from the days when commission rates were fixed. These fixed rates often far exceeded brokers' actual costs of executing trades, especially large trades for institutions such as mutual funds. To compete for business from institutions, brokerage firms would provide financial or investment research products to the buy side institution in addition to executing the trade, in return for the standard commission. This practice was termed a "soft dollar" transaction, since it was paid for by a portion of the standard commission.

In 1975, fixed commissions were set aside, but soft dollar transactions were not forbidden. The 1975 Amendments to the Securities Act of 1934 specifically allowed investment managers to pay for research services with commission dollars, and in 1986, the SEC clarified its interpretation of the rules.[19] In the 1986 interpretation, the SEC stated that an investment advisor could legitimately pay soft dollars for products and services, as long as the advisor had made a good faith determination that the amount paid was commensurate with the value of the products and services received. By and large, the amount paid was considered to be that amount of the commission or mark-up charged by brokers for trades that exceeded the rates otherwise available for execution of similar securities trades.

In the late 1990s the issue had bubbled to the surface again. In 1997 and 1998, the SEC conducted a series of examinations of the soft dollar practices of 75 brokers and 280 investment advisors. The SEC found some out-and-out abuses. Renaissance Capital Advisors (not a mutual fund manager), for example, was using soft dollar payments to cover items like parking, meals, travel, lodging, furniture rentals, and telephone bills.[20] Abuses were the exception, however; most organizations could show that they were using the soft dollars to fund legitimate research. The SEC staff was not satisfied with the record keeping and disclosure practices of many firms, and recommended that the SEC formally adopt new, tightened requirements in both areas.

In 1999, however, the SEC turned toward mutual funds and their investment advisors and brokers, posing the question as to why such a large portion of trades were done with brokers (rather than ECNs) at commission rates of five to six cents per share (rather than much lower rates). At least some observers believe that many funds are not taking advantage of the savings that ECNs have made possible.[21] By 2004 there were more calls from industry observers and participants for additional guidance and rule making from the SEC. In response, the SEC has formed a Task Force on Soft Dollars to more fully understand how soft dollars are used and the implications of the various proposed reform approaches.[22]

is, that the trade itself will cause the price to change significantly. For example, if the fund wants to sell 12,000 shares of a stock that normally trades only 15,000 to 20,000 shares per day, other players will lower the level of their bids as soon as they see the large sell order. The mutual fund trader could decide to work the order over several days, but that leaves the fund open to having the price change in an unfavorable direction. Brokers help funds avoid such market effects either by completing the order in smaller parts, or by acting as the counterparty for all or part of the order themselves (block trading).

The fund pays the broker for handling a trade either by an explicit commission, or via the spread. Buy-side firms such as mutual funds may also receive research services (broadly defined to include not only information, but also computer hardware and software that supports research) from the broker in return for some part of the commissions generated by the fund's trading business. The term "soft dollars" refers to the cost of the research services provided in such an arrangement. Federal securities laws explicitly allow investment managers, including mutual fund investment advisors, to direct brokerage transactions to particular brokerage firms in return for soft dollar–funded research. The advisor must be able to show that the overall amount paid to the broker is reasonable as compared to the overall value of the services—trade execution plus research—the broker provides.

A fund trader can contribute significantly to the performance of the fund through the skill with which he or she gets trades executed. Funds often place big orders, orders that could easily induce a market effect. The fund trader must decide how to complete an order to get as close as possible to the market price prevailing at the time the order was placed. This may mean breaking it up into smaller trades that go out anonymously over ECNs, dealing with a brokerage firm for a block trade, or attempting to cross the trade directly with another institution.

The Cost of the Front Office

The single biggest component of expense for most actively managed mutual funds is what they pay their investment advisor for these front-office functions. While the investment advisory fee often includes back-office functions as well, the major part of the fee goes toward paying for decision making and trading. In some cases, in which the fund has contracted separately for investment advisory and back-office functions, the fee amount for the front-office functions is stated explicitly. For example, for the year ended October 31, 2003, the Vanguard Global Equity Fund paid Marathon Asset Management LLP of London an investment advisory fee equivalent to 48 basis points (out of a total management

fee for the fund of 96 basis points) for its portfolio management services.[23] Strategic Insight reported that the average asset-weighted advisory, administration, and operational fee amounts for all open-end funds was 60 basis points.[24] This fee pays for the compensation for the analysts, portfolio managers, and traders; the information systems and other tools they use; the support infrastructure they need (space, secretaries, etc.); and, in most cases, some profit for the firm that employs them.

The first part of the active-versus-passive argument focuses on these advisory fees. A passively managed fund, which does not utilize research, analysis, or much portfolio decision making, pays very little in advisory fees. An actively managed fund usually pays a significant amount for them. If one believes that making effective securities selection decisions is not possible, then paying for all this decision support and decision making is futile. Thus the proponents of passive management argue that shareholders in active funds pay a premium for a service that is worthless.

The second part of the argument turns on trading costs. Most active funds trade more than passive funds, because the active portfolio manager often trades in the attempt to improve fund performance. The passive manager trades only when he or she is forced to as a result of cash flow needs or changes in the benchmark.

Thus the actively managed fund incurs greater transaction costs involved in trading—money spent on brokerage commissions or the spreads. As discussed in Chapter 3, portfolio trading costs are not always possible to determine, but they can be significant. For actively managed equity funds, they can easily reach 60 to 80 basis points on the average value of the portfolio.

Active funds are also more likely than passive funds to order trades that result in unfavorable market impacts. A passively managed fund usually buys or sells relatively small amounts of the various securities that make up its benchmark (basket trades), amounts too small to have any impact on prevailing prices. Once an active fund manager has decided that a particular security is unattractive, he or she wants to dispose of it, no matter how large the fund's holding. Sometimes it is impossible to divest a large block of a security without a price effect no matter how carefully it is worked. Those who believe that improving performance is an unattainable goal view both the transaction and the market impact costs incurred due to pursuit of performance as a waste of money.

Clearly, whether or not the cost of portfolio decision making and trading involved in active fund management is excessive depends on whether one believes in active management. (Another part of the active-versus-passive argument revolves around shareholder taxes, covered in Chapter 7.)

Table 5.1 Summary of Results of CFA Institute/Russell Reynolds Compensation Survey for Respondents from Mutual Fund Management Companies.

	2003 Median Compensation ($)				
Position	2003 Salary	2003 Bonus	2002 Non-cash [1]	Total	90th Percentile[2]
Chief Investment Officer	150,000	34,690	20,000	220,000	1,035,000
Head of Equities	178,000	75,000	18,500	255,955	1,055,015
Head of Fixed Income	144,025	50,000	15,000	200,000	807,000
Portfolio Manager—Domestic Equities	110,000	27,000	10,000	142,210	405,000
Portfolio Manager—Domestic Fixed Income	118,000	50,000	10,000	165,000	514,000
Portfolio Manager—Global/International Equities	114,150	42,350	10,000	160,000	465,000
Portfolio Manager—Global Fixed Income	115,000	60,000	8,470	176,105	455,120
Securities Analyst—Domestic Equities	90,000	35,000	4,895	124,990	400,000
Securities Analyst—Domestic Fixed Income	95,000	40,000	5,000	130,000	335,000
Securities Analyst—Global/International Equities	95,000	35,000	5,000	124,990	400,000
Securities Analyst—Global Fixed Income	97,385	40,000	5,000	127,980	70,000
Trader	85,000	60,000	5,705	140,000	500,000

Source: Investment Management Survey, CFA Institute and Russell Reynolds Associates, 2004.

[1] Value of non-cash compensation received during the year (usually stock options).

[2] The 90th percentile value for median total compensation, except where there are fewer than 10 respondents, in which case the value given represents the highest value reported.

The spectacular amounts earned by a few portfolio managers have made portfolio manager compensation a particularly visible part of what funds pay their investment advisors. However, few portfolio managers make the millions per year attributed to such figures as Jeff Vinik ($5 million per year when he was managing Fidelity's Magellan Fund)[25] or Mario Gabelli ($15.8 million for serving as portfolio manager to several mutual funds).[26] Surveys suggest that the median annual compensation for mutual fund portfolio managers is about $148,000. A 2003 survey conducted by the CFA Institute found that compensation varied according to factors such as the size of the firm, the type of fund managed and experience. For example, the median for U.S. domestic fixed-income fund managers was $165,000, while for domestic equity fund managers it was $142,000.[27] Half of this total compensation typically rep-

resents incentive compensation based on investment performance. Table 5.1 summarizes the results of the 2003 CFA Institute compensation survey for various investment positions in mutual fund management companies.

Life in an Investment Management Front Office

A fund company's analysts, portfolio managers, and traders live hectic professional lives, with two activities dominating the daily work cycle: communicating with persons both within and outside their firm, and sifting masses of data. The portfolio managers and analysts who handle Invesco's Equity Income and Balanced funds, and the equity traders who support them, clearly illustrate this pattern.

Invesco is one of the oldest mutual fund management companies in the United States, having been founded (as Investors Independent Corporation) in 1932. Today a subsidiary of the international asset management firm AMVESCAP, the INVESCO Funds Group manages about $40 billion in the Invesco family of funds from its office in Denver's Tech Center. The Equity Income Fund, started in 1960, holds mostly domestic equities and seeks high current income with a secondary goal of capital appreciation. The Balanced Fund, started in 1993, holds a mix of common stocks (62 percent in December 1999) and fixed income securities to provide high total return through both income and growth.

A team of equity analysts, some of whom are also assistant portfolio managers, provide the portfolio managers with expertise on specific sectors and industries. Sean Katof, for example, covers capital goods, transportation, basic materials, and consumer cyclicals. As he puts it, his role "is to know the sectors I cover—what's going on in them, what the leading firms are doing, what the challenges and opportunities are, and especially what's going on with the companies we hold." He gathers information from many sources, including sell-side analysts who work for the brokerage firms. "I go to them," he says, "when I want to know what the sell side is thinking about a firm or industry. They're more deeply and narrowly focused than we are—where I cover several sectors, a sell-side analyst might concentrate on just ten companies in one industry."

He gets the most valuable information, though, by talking to people who work in the industries he covers. INVESCO's analysts visit or conduct a conference call with every firm whose stock they hold at least once per quarter. Sean also talks with others in the industry who have insights that could prove valuable, such as suppliers. "Say Boeing tells us they expect production to be flat next year. Well, what do their suppliers see—are they getting parts and materials orders from Boeing that are consistent with that

forecast?" Like other analysts, Sean attends industry conferences, follows the industry trade journals, and tracks breaking industry news via sources like Bloomberg and CNN. He attends several meetings per day with company management or analysts.

Chris Bedowitz, also an assistant portfolio manager and analyst, covers the health care, technology, and telecommunications sectors. He echoes Sean's description of the overwhelming mass of data that flows toward them each day. Like every analyst, he has dozens of voice mail and e-mail messages, mostly from sell-side analysts and salesmen, queued up by mid-morning each day. He faces a daily stack of mail eight to ten inches high, crammed with trade journals, company press releases, and research reports from sell-side analysts. Weeding through all this to get useful information, Chris maintains, is the analyst's real job. He relates an analogy drawn by a former director of research:

> *It's like you and every other analyst have had the pieces of a jigsaw puzzle dumped out in front of you. You don't have anything that tells you what picture your puzzle is supposed to represent. You don't have all the pieces to complete your puzzle. You have pieces for other people's puzzles in your stack. People give you more pieces and take pieces away as you work. Your job is not to complete the picture—that would take too long, and would be worthless by the time you're done. Your job is to figure out what the picture is before anyone else does.*

INVESCO uses a team of portfolio managers for the funds, and Peter Lovell handles the equity portion of the Balanced Fund, and two other funds. He makes both allocation decisions (how much to overweight or underweight the fund's holdings in a sector as compared to the S&P 500), and stock selection decisions. As a matter of policy, the fund holds between 50 and 60 issues, no one of which makes up more than three percent of the total portfolio value. Peter lists five criteria a company must meet before he will decide to hold its stock in the fund:

1. It must have earnings greater than the average for its sector
2. It must have a strong balance sheet
3. It must have an attractive PE/growth ratio
4. It must display some area of competitive advantage
5. It must have strong management

In addition to these factors, some of which are very qualitative, he also reviews charts of general market trends that help him evaluate the stock's relative valuation. Invesco is a growth shop, Peter says. They look for stocks where both the company fundamentals and the earnings growth indicate that the stock price should rise.

Like the analysts, Peter is inundated by messages—via telephone, e-mail, and mail—from the brokerage firms on the sell side. "They're of limited value to me," he says. "They all have their own agendas to pursue. I get much better information from our internal analysts." Occasionally, he says, the brokerage firms are helpful in getting them access to executives of companies they might otherwise have difficulty reaching. By and large, however, he looks for the Invesco analysts to tell him what's going on in their sectors, what stocks look like promising opportunities, and where the problems are.

Once he's made a decision to buy or sell, he sends the order to the traders via INVESCO's trade order management system. The system checks the order for compliance with regulatory and prospectus rules, and if no tests fail, sends it within seconds to the trading desk. Peter says he never gives the traders any instructions to direct an order to a particular broker. Instead, the investment management team—analysts, portfolio managers, and traders—meets quarterly to draw up general guidelines for apportioning order flow to different brokers, based on how helpful the various firms have been with research, trading help, and other services.

Pat Johnston, INVESCO vice president, heads the equity trading function. In the trading room, Pat is a whirlwind of multichannel communication. Her desk features an array of no fewer than six computer screens, and she divides her attention among these, the two or three simultaneous conversations she is having with other traders in the room, and the constantly ringing telephone. "This is a multiprocessing job," she says, with considerable understatement.

Pat directs the efforts of six traders, who handle the 200 or so equity trades the various Invesco funds generate on an average day. She herself has been a trader for over 17 years; collectively, her team totals over 65 years of trading experience. The INVESCO portfolio managers take advantage of this experience, generally relying on the traders to find liquidity as they deem best. "Our traders are awesome," says Chris Bedowitz, "I wouldn't dream of telling them where to work a trade."

Pat describes how she might work a trade, using a particular buy order as an example. Several sell-side firms had issued positive reports on this issue the previous day. Before the NYSE opened, she went on to AutEx, which advertises bids and offers to brokers and institutions like INVESCO, to see what was out there for this stock. She called a brokerage firm they use a great deal and with whom they have good relations, to discuss the situation. Because of the reports on this company, there was much activity around the specialist's booth on the NYSE floor, and the brokerage firm, which also had a trader on the floor, could tell her what was going on. She weighed her options: She

could put the entire INVESCO order up before the opening, but that might move the market. However, the opening price could be the best one of the day. Finally she decided to buy part of the lot Invesco wanted at the opening, and then lie back and "let the market breathe" before adding to the holding. Ultimately, this strategy was successful—Invesco got the shares it wanted via several trades at an average price significantly lower than the closing price for the day.

"The role of the fund's traders is different now than it was ten years ago," Pat says. "Then the trader was more of a clerk, simply transmitting the orders to the brokerage firms' traders. Now we work the trades, and how well we do can make a big difference." She particularly values the electronic markets (they use Instinet and B-Trade) for their low cost, and even more importantly, the anonymity they provide. "If I want to sell a big block and I show that to a broker, I know I'll start seeing bid levels go down almost immediately."

The electronic markets have had a big impact, she maintains. "Trading has changed more in the last year and a half than it did during my entire previous 15 years on Wall Street." She points out that Invesco currently deals with 80 sell-side brokerage firms and two electronic networks. One of these, Instinet, currently ranks number four in the list of brokers by trade volume, and electronic trading is increasing. She expects the trading landscape to change even more dramatically over the next few years, as the electronic networks rationalize and gain access to greater pools of liquidity.

Pat and the traders know the general guidelines for allocation of order flow to brokers, and they consult these when they can get the same quality of execution from multiple brokers. "We never sacrifice best execution to direct order flow," Pat says, "but when there's a tie, we will look to see if one broker is below its allocation for the quarter, and if so, we will direct the trade that way." Invesco uses the soft dollar funding it gets from its order flow to brokers for three things: to pay for some market information feeds, including Bridge and Bloomberg; to obtain research that the sell-side firms provide to the portfolio managers and analysts; and to defray some of the custody fees that the funds would otherwise pay.

In late 1999, both the Equity Income and Balanced funds were very successful—both were rated four stars by Morningstar, both ranked high in their Lipper categories, and both had enjoyed net subscriptions for the year. The investment management front-office team was doing well when compared to their peers in other funds. But they're not infallible, Chris points out. "Sometimes we'll decide to sell something we hold, saying 'the fundamentals have deteriorated.' What that really means is that we made a mistake when we bought it. Fortunately, that doesn't happen too often."

chapter 6 | The Investment Management Back Office

A provider of back-office services . . . takes care of the nitty-gritty chores that nobody likes to think much about, but that must be done properly—or else.

— Carol E. Curtis (1999)[1]

The front- and back-office functions in investment management resemble respectively the motivator and hygiene factors in Herzberg's famous theory of motivation.[2] Front-office activities—analysis, portfolio management, trading—determine the income and growth in value in the fund's portfolio. They contribute visibly to the fund's performance. They resemble the motivation factors of Herzberg's theory, exciting customer attention and giving investors a reason to want to invest in the fund. Back-office functions, by contrast, are hygiene activities that meet the basic requirements of running a viable fund. They cannot contribute to a fund's return by making the value of the portfolio holdings better (although they can drag it down if they cost too much). They don't excite anyone outside the investment management organization (and few within it). But, like hygiene factors in work, they must be there—unless they are done reliably, correctly, and consistently, there won't be a fund at all.

After the analysts have found stocks and bonds to buy or sell, and the portfolio managers have made their decisions, and the traders have implemented those decisions on the markets, much work remains to be done to turn all that into value for shareholders. The trades must be carried to completion—confirming the various parties' understanding of trade details, moving money, and transferring security ownership. The securities themselves must be held in safekeeping. The effects of the trades must be reflected in the securities inventory records kept by the investment advisor to support subsequent investment decision making. This inventory must be kept current as the securities in it earn and receive dividends and inter-

est, and issuers split, reorganize, and carry out other corporate actions. The results of the investment advisor's activity must be examined to ensure compliance with regulatory, prospectus, and policy requirements. Reports must be prepared for internal and external parties. Carrying out or overseeing all these activities falls within the responsibility of the investment management back office.

Back-Office Players

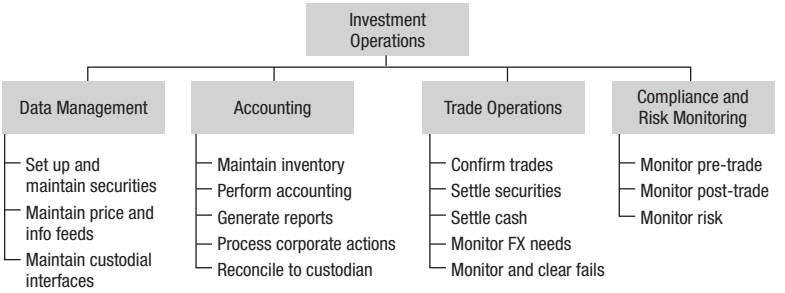
While the term "back office" refers most specifically to the investment manager's investment operations group, this operations group interacts with several external players to carry out the back-office functions. These external players include clearing agents, depositories, and custodians.

Investment Operations

The central component of an investment manager's back office is the investment operations group that maintains securities records, performs various monitoring and reporting functions, and oversees the trade process to completion. The back office is typically part of the same organization as the investment advisor, although it can be separate. Several firms provide back-office functions on an outsourcing basis for smaller fund groups. Figure 6.1 shows the major functions of the back office, and one of the many ways it can be organized.

- *Data management.* In the previous chapter, Figure 5.1 showed a data store connecting all the front- and back-office members involved in the process. The data management group within investment operations plays an important role in maintaining this data store—records of the fund's trades and the inventory of its securities holdings. As new issues are acquired, data management must set up the security master records in the system,

Figure 6.1 Major functions of an investment management back office.



which for some instrument types (for example, debt securities with individual payment schedules), can be quite complex. Data management also ensures that the system takes various feeds of information each day, typically from external information vendors, via automated computer transmissions. These information feeds include securities prices, and dividend and other corporate action notifications. For securities for which automated pricing is not available, operations must obtain and manually enter the prices. Finally, the group may help maintain automated computer links between the fund and its custodian, so that data regarding holdings and activity can be exchanged and compared.

- *Accounting.* The accounting group ensures that the securities inventory is kept correctly. It posts income transactions, such as dividends, interest payments, and paydowns (the combination principal and interest payments made on mortgage-backed securities). As corporate actions such as stock splits, name changes, and calls occur, accounting ensures that the inventory is adjusted to correctly reflect their effects. Every investment management back office performs this level of securities accounting, since the investment management front office depends on this information about the state of the portfolio to support its analyses and trading decisions. The next chapter will describe the more specialized fund accounting required specifically for registered, open-end mutual funds.

  Accounting typically works closely with the custodian (whose role is described later in the chapter) to make sure the internally maintained securities inventory matches the records of the custodian. The operations group also tracks the cash balances at the custodian, reconciling their records each day with the reports sent by the custodian. These balances change as dividends and interest are received and as trades are settled. As necessary, they instruct the custodian to wire or receive funds. For example, when shareholder subscriptions result in a net inflow of cash to the fund, operations must get this cash into the proper bank accounts so that the custodian can settle the securities purchase trades that are made to invest the cash. If the fund is trading on foreign markets, operations may handle the fund's needs for foreign exchange to settle trades. In addition, holding securities gives the fund the right to vote via proxy on shareholder questions, so these must be monitored and voted.
- *Trade operations.* The major part of the operations group provides trade support—that is, it takes the steps required to complete trades that the front office has executed. These actions are collectively known as the trade settlement process, and are discussed in detail later in the chapter.

- *Compliance and risk monitoring.* Back-office staff monitor the trades and holdings of the fund to ensure that the investment advisor is neither breaking the rules nor subjecting the funds to undue levels of risk. Portfolio compliance monitoring and risk monitoring are discussed in detail later in the chapter.

Clearing Agents and Depositories

Prior to the 1960s, the standard method of transferring ownership of securities was to physically transfer a certificate representing ownership from the seller to the buyer. By the 1960s, however, the volume of securities trades in the United States grew to the point that issuers, their transfer agents, the exchanges, and the brokerage firms could no longer process the paperwork required by this traditional approach. In response to this paperwork crunch, two independent and parallel approaches were introduced: *securities clearing corporations* and *depositories.*

A clearing corporation approached the problem of handling high trade volumes by acting as a settlement intermediary between all parties involved in a trade. The clearing corporation nets all the securities and cash flows to and from each of its members each day, and creates a net movement of securities and cash for each member. Because of this netting, the clearing corporation guarantees the members that if one side or another to a trade failed to settle, the solvent party could still complete its side of the trade, with the clearing corporation as counterparty.

The National Securities Clearing Corporation (NSCC) clears and settles virtually all retail equity, corporate bond, and municipal bond transactions in the United States today. Originally, corporate securities clearing agents were divisions or subsidiaries of the exchanges. In 1975, amendments to the Securities Exchange Act of 1934 gave the SEC oversight of clearing agencies, and the major markets (NYSE, ASE, and NASD) spun off their subsidiaries into NSCC.

A depository holds securities in its own custody and records changes in the ownership of those securities by making book entries in its computer systems. The securities themselves might be represented by physical certificates residing in the depository's vault, or they may simply be computer records ("uncertificated"). Different depositories hold different types of securities. The Depository Trust Company (DTC) provides custody for almost two million issues, including corporate equities and bonds, municipal bonds, mortgage-backed bonds, U.S. Treasury and agency bonds, and various types of money market instruments. The Federal Reserve is the depository for U.S. Treasury bills and notes. The Bank of New York's vault holds bonds that have

physical coupons and physical certificates for some issues. The Participatory Trust Company (PTC) was the depository for some mortgage-backed securities until it merged with DTC in 1998.

Over the years, the clearing and net settlement functions of NSCC and the depository functions of DTC have converged to the point that the two organizations agreed to merge in 1999. Today the typical portfolio trade executed on behalf of a mutual fund is completed with a netted transfer of money and a book entry change in ownership via the combined DTCC.

The Custodian

The 1940 Act gives mutual funds several options for maintaining custody of their securities, but nearly all U.S. mutual funds today use independent banks as custodians. Table 6.1 shows the major custodians of mutual fund assets as of December 2003. While Table 6.1 shows figures only for open-end mutual

Table 6.1 Mutual Fund Custody Providers (Registered Open-End Funds)

2003 Rank	Institution	Assets in Custody ($ millions)
1	State Street Corporation	$3,094,323
2	JP Morgan Chase Bank	1,572,712
3	The Bank of New York	1,246,115
4	Citigroup Global Transaction Services	656,000
5	PFPC Trust Co./PNC Bank	400,550
6	Mellon Global Securities Services	388,058
7	Brown Brothers Harriman	305,000
8	Investors Bank and Trust	287,733
9	Wachovia Bank	252,000
10	U.S. Bancorp Fund Services	148,384
11	Wells Fargo Global Trust & Custody	85,000
12	Northern Trust Company	70,316
13	UMB Investment Services Group	54,825
14	Fifth Third Banki	23,027
15	Union Bank of California	20,701
16	The Huntington National Bank	4,017

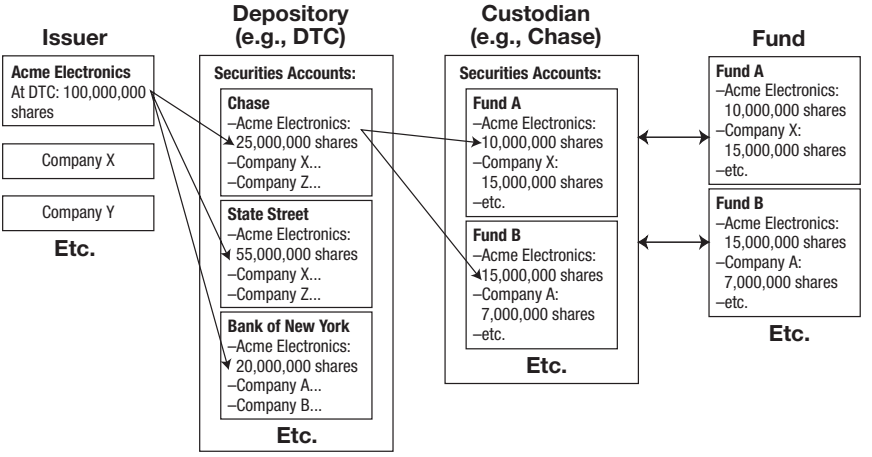
Source: 2004 Mutual Fund Service Guide, Thomson Media, 2004
All figures are as of December 31, 2003.
Domestic open-end funds only.

fund custody, most custodians also hold assets for other types of clients—pension funds, trusts, and so on. The cumulative market share column suggests how concentrated the industry is, with the top ten players accounting for 97 percent of mutual fund assets. This reflects the fact that the low margins and large investments required for specialized information technology make custody a business that favors significant economies of scale.

The custodian holds the fund's securities in safekeeping and manages the cash movements involved in settling trades and income payments. At one time, many of the fund's securities holdings took the form of physical certificates, and the custodian held these in its vault. Physically issued securities are much less common today, but do still occur. When a fund does hold certificates, these are kept in the custodian's vault. More commonly, the securities exist only as computer records with the custodian, depository, and issuer. Figure 6.2 depicts the common relationships among issuers of securities, depositories, custodians, and funds.

The custodian maintains both cash and securities accounts at each of the depositories. The securities account contains all the securities held by mutual fund and other clients of that custodian. The cash account is used to move money to and from the depository in the settlement of trades and other transactions, such as dividend and interest payments. When the exchange-listed stock trade settles, the depository moves money from the cash account of the buying custodian (or broker) to the cash account of the selling custodian (or broker), and changes its ownership records by adding to the buying custodian's security account and subtracting from the selling account.

Figure 6.2 Relationships among issuers, depositories, custodians, and funds.



Issuers of securities (or their transfer agents) make income and dividend payments to the depositories, which allocate them to the appropriate custodial accounts. Custodians then allocate the income to their clients for which they are holding the securities. In cases where the holding is in physical form, the issuer or transfer agent sends the income directly to the custodian. The custodian allocates the income it receives from the issuer, either directly or via the depository, to the client accounts it holds. The investment management back office, which is itself keeping a securities inventory and accruing income, compares its expectations with the custodian's actual receipts to ensure that everything is correct.

Some U.S. mutual funds hold securities that are issued and traded outside the United States. This trading in foreign markets requires the fund to use subcustodians who can participate in the local markets, interact with the local clearing agencies, and hold accounts in the local depositories. Rule 17f-5 under the 1940 Act governs the custody of mutual fund assets outside the United States. It allows a fund to use a U.S. bank or a qualified foreign bank, so long as certain safeguards are in place. As a practical matter, mutual funds typically delegate the tasks involved with dealing with subcustodians to a global custodian. The global custodian is usually a large bank (such as Citibank, Chase, or State Street) that has built a network of subcustodians with which it interacts on behalf of its clients, including mutual funds. Often the global custodian's contract with the fund will guarantee that the subcustodians will meet stated performance standards (e.g., collect income on payment date).

Custodians often combine other support functions along with basic custody in their offerings. The following list includes some of the more common offerings:

- *Securities lending.* Funds may earn extra income by lending the securities in their portfolios, typically for short periods, to counterparties that must deliver securities that they do not own. The custodian arranges the lending transactions and typically assumes any default risk involved in the transaction.
- *Short-term investment funds.* The custodian sweeps all cash sitting overnight in the fund's custodial accounts into an internal short-term fund that it maintains. This relieves the portfolio manager of having to make overnight cash investments.
- *Credit lines and overdrafts.* Funds may occasionally face short-term cash deficits, typically as a result of shareholder redemptions. A manager could hold a large cash reserve to cover this eventuality, but that drags down fund performance. Liquidating portfolio holdings to meet short-term cash

needs is even less attractive. Instead, the fund manager may choose to borrow money for short periods from the custodian to cover these situations. The 1940 Act permits this type of borrowing as long as it complies with stringent guidelines.

- *Fund accounting, fund administration compliance, and risk monitoring.* Custodians offer to perform all of these functions (each of which is discussed in detail later) that are normally viewed as part of the back office.
- *Reporting and information delivery.* The custodian holds records of the fund's securities holdings and activity. To add value, the custodian offers reporting and electronic delivery of this information for various purposes. For example, some investment managers get the securities inventory each day from the custodian.

Each of these additional services carries an additional price tag. As basic custody service becomes an increasingly low-margin business, custodians seek to expand their lines of service to generate additional revenue.

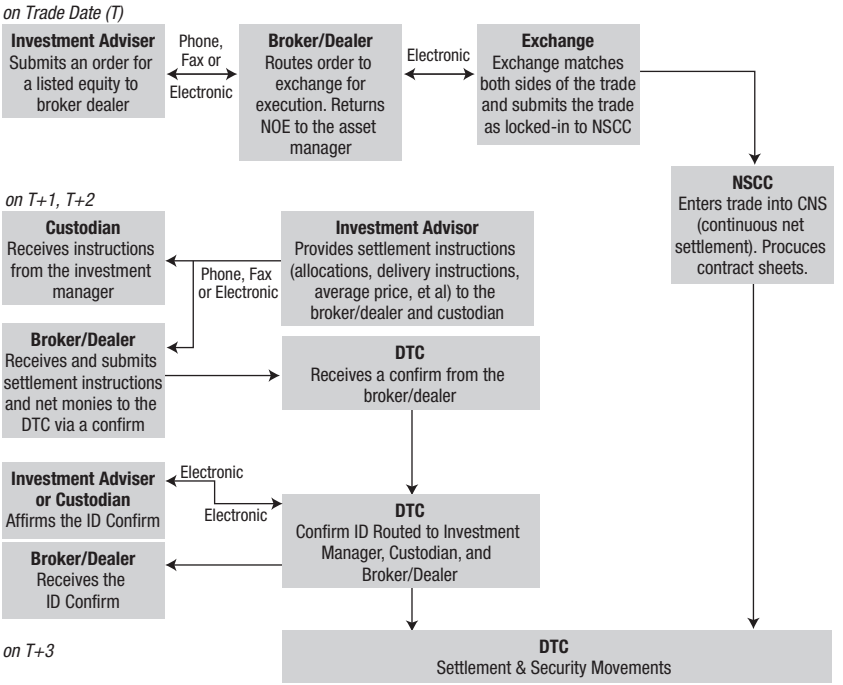
After the Trade Is Made—The Settlement Process

Executing a trade means getting agreement between a buyer and a seller to exchange a specific quantity of a specific security at a stated price. The way this is done ranges widely, from informal human interactions—a nod of the head or wiggle of a finger on the floor of an exchange, a few words in a quick telephone call—to totally automatic matching done inside an electronic communications network. However it is done, it triggers a series of interactions among several parties that eventually results in the buyer of the security getting ownership and the seller getting cash. Collectively, this chain of events constitutes the trade settlement process.

Figure 6.3 summarizes the entities and activities involved in settling one of the most common types of trade, that of an exchange-listed equity (IBM or General Motors common stock, for example). On the day of the trade (trade date, or T), the exchange starts the settlement process by determining whether the attributes of the trade (quantity, price, etc.) as submitted by the selling broker or specialist are the same as those submitted by the buying broker or specialist. If they are, the exchange considers the trade matched, and sends the record of the trade to the clearing organization, in this case the National Securities Clearing Corporation (NSCC). Simultaneously, the broker sends a notice of execution (NOE) to the investment advisor.

NSCC and other clearing organizations provide central locations to which trades are submitted for clearance processing, which includes trade comparison, netting, and money settlement. The clearing corporation interposes itself

Figure 6.3 Execution, clearance, and settlement of an exchange trade.



between the buying and selling parties, guaranteeing the settlement of all successfully matched trades. The clearing corporation generates settlement obligations that initiate the delivery/receipt of securities and receipt/delivery of monies. Without the clearing organizations, each party involved in trading would have to set up agreements and facilities to deal directly and individually with every other party, creating a network of monstrous proportions.

Currently, listed equities in the United States settle in three days. On the days between trade and settlement, the various parties exchange information to ensure proper settlement. The investment advisor has until the morning of T+2 to give the broker delivery details, such as the allocation of the order (i.e., which fund will actually own the shares being bought), the prices of the allocations, and the name of the custodian. The advisor gives matching information to the fund's custodian so that the custodian can move money properly on settlement date.

Upon receipt of the delivery details from the investment advisor, the broker (in the case of our exchange-listed stock example) communicates these to the Depository Trust Corporation (DTC) in the form of a confirmation. As

part of the trade settlement process, DTC routes confirmations to the investment advisor, the custodian, and the broker dealer. The confirm says, in effect, "This is what we at DTC believe all of you have agreed upon regarding this trade." If both sides respond affirmatively to this notification (affirm the confirm) within the agreed-upon deadlines, ownership is switched and money changes hands on T+3.

Other types of securities clear and settle through different paths, but all follow the same basic pattern. Once the trade is made the various counterparties exchange information to confirm their understanding of the trade details.

Straight-Through Processing

Both money and securities exist today mostly in the form of electronic records. Yet the process of trading and settling securities remains riddled with anachronistic manual interventions that add cost, delay, error, and risk to the process. Automating the trading cycle from end to end is such an important and obvious goal that the industry has long since adopted a universal term for it: straight through processing (STP).

Moving to straight through processing—automating all the interactions involved in the investment management cycle—is immediately attractive for several reasons. It reduces cost and risk at a time when both are becoming more important and visible to the market. Undertaken properly, it positions the fund manager to move quickly as new capabilities, such as more liquid electronic markets, come online.

In 1992, a task force studying the securities industry argued that the settlement window for securities trades should be reduced from five days to three, believing that a shortened settlement cycle would reduce credit and market risks incurred by clearing firms. The SEC adopted this recommendation for implementation effective June 1, 1995. This change did in fact produce a more efficient and less risky trade cycle, as evidenced by the fact that the rate of trade failures fell even as overall trade volumes increased. To achieve this, industry participants—asset managers, brokers, clearing agents, custodians—had to streamline their operations, and invest in new support systems.

There were efforts made in the mid 1990s to shorten the settlement cycle to T+1, and STP was seen as an essential step in this process. In 2002. the effort to move to a T+1 settlement cycle were put on hold as the securities industry recognized that, to implement a program that would work, more consensus was needed from the industry on the approach. More recently, in March 2004 the Securities and Exchange Commission issued a concept release that requests comments on methods to improve the safety and operational efficiency of the U.S clearance and settlement system and to help the U.S Securities industry achieve straight-through processing.

Ultimately, fund shareholders will be among the beneficiaries of this change. Both reduced trade failures and improved operations reduce the cost of securities processing, a cost that shareholders now bear as part of the fund's expense ratio.

These interactions are facilitated by different clearance and settlement agents, depending on the type of security being traded. The time between trade and settlement also varies—in the United States some securities, such as Treasury notes and commercial paper, settle on trade date; outside the United States, some settlement cycles remain weeks in length. In all cases, however, the process ends with the transfer of ownership and movement of money.

The trade operations group makes sure trades are processed to completion successfully. They obtain records of trades that have been executed by the front office, and compare them to the notifications that come in from the broker and clearing organization. They confirm the trades with the brokers, and affirm the trades through DTC. If one of the parties involved in the settlement sends a non-recognition notice (called a DK, for "don't know"), they research and resolve the problem so that the trade can settle properly. Most often, DKs result from one of the parties—investment manager or broker—not including enough information on the record it creates of a trade, rendering it impossible for the trade to be recognized.

Having a discrepancy cause a trade to fail—that is, to be invalidated and have to be redone—can cost money for the investment manager. For example, consider the case in which the advisor sells a security, the security's price on the market falls significantly, and then the trade fails. If the advisor has to make the sale again at the new, lower price, someone has lost money. If this happens, the regulations make it clear that the investment advisor, not the fund, is on the hook for the losses. The SEC interprets Section 206 of the 1940 Act, the anti-fraud provisions, to mean that advisors are expected to insulate clients from trading losses.[3] The SEC has made it clear that an advisor cannot use soft dollar arrangements to absorb any loss for which it is responsible; it has to come out of the advisor's pockets. Needless to say, the back office works hard to ensure that trades do not fail. When a trade failure does occur, the trade operations group must determine who is at fault (e.g., advisor, broker, counter-party), and the amount of loss that must be made up to the fund.

Portfolio Compliance and Risk Monitoring

The Investment Company Institute publishes a guide for mutual fund directors to help them understand their obligations, requirements, and restrictions. When it comes to portfolio compliance, the guide is straightforward: "as part of its overall 'watchdog' role, the board of directors must monitor the investment company's compliance with investment policies and restrictions."[4] Failure on the part of the fund to comply with legal and prospectus restrictions can lead to legal liability for the directors themselves. In actuality, a fund's

When Compliance Monitoring Fails

Portfolio compliance monitoring seeks to prevent rules violations that may be unlikely to occur, but which have serious consequences when they do occur. The case of PaineWebber's Short Term U. S. Government Income Fund illustrates just how serious those consequences can be.

In the early 1990s, PaineWebber brokers sold this fund to their clients as an alternative to money-market funds or CDs, an alternative that would provide a higher yield at only a slightly higher risk. (Some brokers started calling it the "CD buster.")[5] The fund's prospectus stated that it sought the highest level of income consistent with preservation of capital and low volatility of NAV. Further, an appendix to the prospectus disclosed that the fund would avoid certain types of securities, including specific types of interest only and principal only stripped mortgage-backed securities. This approach to pursuing this objective proved successful. By 1993, the fund had gathered $1.3 billion in assets.

Unfortunately, however, the portfolio manager for the fund started violating these rules in pursuit of better performance. He bought some of the explicitly forbidden securities—"inappropriate IO and PO securities," as the SEC termed them in its enforcement procedure findings.[6] No compliance monitoring detected or flagged these acquisitions. No one suspected any problem at all, as long as interest rates remained low. When interest rates increased sharply in the first half of 1994, however, the response of these securities—a steep drop in price—illustrated precisely why they shouldn't have been in the portfolio in the first place. To compound the problems, the portfolio manager disguised this price drop—he overrode the prices they were getting each day from the custodian with prices he derived himself, prices that averaged about 27 percent higher.[7] No compliance monitoring procedures caught this, either.

Finally, in early May, cash flow needs forced the fund to sell some of these securities—at prices much lower than the manager had been using—and the cat was out of the bag. On May 6, the fund was revalued using the custodian's prices for the securities, and the NAV dropped 4 percent in one day. Brokers and shareholders screamed, senior management began investigating, and the SEC took notice. Over the next few months, the entire story came out. The results were catastrophic.

- PaineWebber ended up paying $283 million to fix the problem—$250 millionto buy the questionable securities from the fund, and $33 million to settle shareholder lawsuits.
- The SEC fined PaineWebber $500,000 for failing to adhere to the prospectus in managing the fund.
- People lost their jobs: the portfolio manager, and both the chief investment officer and the president at Mitchell Hutchins, the PaineWebber subsidiary actually managing the fund.
- Shareholders bailed out, reducing the fund's assets from $1.3 billion to $600 million within a year.

- In an attempt to regain credibility, PaineWebber engaged a third party subadvisor, PIMCO, to manage the fund, at a cost to PaineWebber of about $1.5 million per year.
- Both the portfolio manager and the chief investment officer were sanctioned by the SEC.

From the SEC's point of view, it was a clear-cut case of failure to monitor compliance. Said Colleen Mahoney, SEC deputy director: "the case is a reminder to firms to pay attention to what their portfolio managers are doing. This fund was recklessly invested and PaineWebber wasn't monitoring their manager properly. Well, if the fund companies don't, we will."[8]

directors engage the manager, the custodian, or another entity to carry out the operational steps involved in compliance monitoring, while they retain ultimate responsibility.

Different fund groups organize the compliance monitoring function differently, and many aspects of compliance are not related to the portfolio composition. These other aspects of compliance—dealing with such issues as distribution and regulatory reporting—are discussed in the next chapter. Portfolio compliance and risk monitoring are sometimes termed investment management "middle office" functions. Since they focus primarily on the trades and securities holdings of the fund, they resemble back office functions and are discussed here. Portfolio compliance monitoring falls into two broad categories: pre-trade compliance and post-trade compliance.

All fund groups perform post-trade compliance monitoring in one way or another. The compliance group examines records of the fund's portfolio holdings at periodic intervals, usually quarterly or monthly, looking for cases in which a rule has been broken. This monitoring is typically evidenced by checklists that are completed and signed by a compliance officer. For many fund companies, this activity remains manual—compliance officers pore over reports of fund holdings, ticking off their findings on paper checklists. Others have automated at least part of it, having computer programs compare records of fund holdings with the rules, and highlighting exceptions.

Unfortunately, periodic post-trade monitoring leaves open the possibility that a problem trade could go undetected for a considerable time, with the potential risk of significant cost involved in unwinding it. For example, consider the case in which the advisor violates the industry concentration rule by taking a position in a certain security, but doesn't discover the fact until three weeks later, by which time the value of the position has declined by $100,000.

From the fund director's point of view, this is simply a condition that the advisor must fix. Regulations make it clear that the advisor, not the fund, is liable for any resulting loss. The advisor must "make the fund whole."

Pre-trade compliance monitoring helps the investment advisor avoid this problem in the first place. Advisors that have had costly compliance violations typically become very interested in implementing pre-trade compliance procedures. Pre-trade compliance checking is implemented via a computerized trade order management system. First, the compliance staff articulates the rules in a way that they can be input into the system. Then, as each trade order is entered, the system checks it against the rules. For example, when the portfolio manager enters an order to buy Intel, the system goes through a hierarchy of checks: Is this a forbidden issue? If not, does it violate the rule on how much of a single stock we can own? If not, does it drive us over the limits for the industry? The list can go on. If there is an apparent violation, the system signals an exception. Investment management staff check to see whether the violation is real, in which case the trade cannot proceed.

Pre-trade compliance checking does not eliminate the need for post-trade or back-end compliance monitoring. Market action may bring a fund's position out of compliance with a regulation even if no trades have been made. For example, a fund that had a prospectus limit of 15 percent for any individual sector could find that rising prices had raised the market value of its holdings in one sector to the point that it violated the 15 percent rule. These types of violations are caught by periodic monitoring of the fund positions against the rules.

Even if a fund's investment advisor follows every regulation, prospectus requirement, and management company policy perfectly, that does not eliminate risk for the fund. For example, a fund holding a perfectly acceptable (from the compliance standpoint) portfolio of bonds could incur significant losses if interest rates shift significantly in the wrong direction, or a major issuer defaults. Risk management involves analyzing these and other types of bad things that might happen to the fund, and determining what should be done to reduce their potential impact. The function is harder to describe than other investment functions, since the discipline is only a few years old, and no two firms approach it in the same manner. Some observers argue that asset managers such as mutual funds are only just beginning to apply risk management techniques.[9]

Risk monitoring can be as simple as measuring certain attributes of the fund's portfolio (duration, credit rating profile, country exposure, etc.) and comparing them to targets or benchmarks. Portfolio managers do this sort of monitoring in the normal course of running the fund. In other cases, risk management may involve running computer models that project what would

happen under various circumstances (interest rates change, foreign exchange rates change, etc.). Value at risk (VaR) modeling attempts to express the amount of risk inherent in a fund's portfolio of securities at any given time by explicitly calculating how much money the fund could lose under specified circumstances. The model repeatedly simulates the portfolio's behavior as it changes underlying assumptions, and develops a profile of the resulting outcomes. Doing VaR calculations requires specialized computer systems and staff dedicated to using them.

However a fund's management handles risk monitoring, it remains a combination of art and science, with much of the art lying in human judgments about the validity and applicability of the quantitative results. A VaR model may show that the fund could lose $10 million tomorrow if German interest rates fall, but will those rates fall? And even if we believe that they will, what's the best action to take? The best that directors and shareholders can ask for today is that fund management monitor risk using some systematic technique, and act upon the results it receives.

Compliance versus Risk: The Piper Jaffray Affair

A fund's manager can operate in complete compliance with the regulations and the language in the fund's prospectus, but still subject the fund to unacceptable levels of risk for its shareholders. The incident of the Piper Jaffray Institutional Government Income Fund illustrates the difference between compliance and risk monitoring.

This fund was aimed at institutions and high net worth individuals that wanted to earn better than deposit account rates on their excess cash. In the early 1990s, the fund gave them exactly what they sought, and by 1993 had attracted $800 million from investors the likes of the Minnesota Orchestra and the towns of Maple Grove, and Mound, Minnesota. Portfolio manager Worth Bruntjen's investing strategy had made the fund the best performing of short-term government funds in 1993, and the money poured in.[10] To accomplish this, however, he had to take some considerable risks. In early 1993, Bruntjen had nearly 60 percent of the fund's assets invested in three types of mortgage-backed derivative securities:[11]

- Principal Only Strips—securities that do not bear interest, and entitle the holder to receive only the principal component of the payments made on the underlying mortgages;
- Inverse Interest Only Strips—securities that pay the investor in inverse proportion to the interest payments being made on underlying securities; and
- Inverse Floaters—securities that pay the holder an interest rate that adjusts periodically in the opposite direction of a specific index.

In all cases, the market value of which would rise if prevailing interest rates fell, and fall if interest rates rose. Effectively, Bruntjen was making a large bet with the fund's assets that interest rates would continue to fall.

No Piper Jaffray compliance checking procedures caught this for the simple reason that no regulatory or prospectus rules were being violated. The 1940 Act does not ban funds from holding derivatives. The fund's prospectus explicitly stated that it could hold these types of securities. Other mortgage-backed funds bought these same types of derivatives, although in nothing like the proportions of Piper. The problem was not one of compliance but of risk—no one noted that Bruntjen's bet was unhedged—that is, that the fund held nothing that would mitigate the effect of rising interest rates on the derivatives. No one noted the size of Bruntjen's bet and the consequences if it failed.

Unfortunately, fail it did in 1994. Interest rates rose, the market values of the derivatives plummeted, and the fund lost more than 20 percent of its value. Piper fought the consequences for years. Shareholders filed several lawsuits, which Piper eventually paid over $138 million to settle (the Minnesota Orchestra was awarded $6 million, plus interest).[12] Many observers believe that it was the financial drain from this affair that ultimately persuaded Piper to allow itself to be acquired by U.S. Bancorp in 1997, ending 102 years of independent existence.[13] The fallout continued into the new century, with KPMG agreeing in March 2000, to pay $13.9 million to settle a class action suit filed against it for its role in auditing the fund.

The SEC finally weighed in four years after the fact, filing suit in 1998 against Bruntjen, five other individuals, and Piper Capital Management (by then part of U.S. Bancorp). The SEC did not charge, however, that Piper had failed to comply with prospectus restrictions on the types of securities it held. Instead, it alleged that misleading marketing materials had portrayed the fund to investors as conservative even while Bruntjen's management made it highly speculative. It also accused several staff of engaging in NAV manipulation in 1994 to try to disguise the fact that the fund's value was collapsing. In short, the SEC concluded, Bruntjen had employed "devices, schemes, and artifices to defraud investors in the offer and sale of securities."[14]

The great sin of omission Piper committed that allowed all this to happen was its failure to monitor the risk of the portfolio that their manager had built. Had they seriously evaluated in 1993 the extent of the fund's exposure to a rise in interest rates, management could have forced Bruntjen to unwind or hedge his positions, reducing or eliminating the risk.

The Cost of the Back Office

Most often, the cost to the fund for many back office functions is included in the fund's advisory fee. Both the ICI and industry consulting firms (Strategic Insight, FRC) include both front office (i.e., investment decision making) and back office (settlement and record keeping) operations, along with other

management company functions, such as contract administration, within a composite figure. In 1998, Strategic Insight found that this "Advisory and Administration" fee averaged (on an asset-weighted basis) about .47 percent (47 basis points) across all funds.[15] More recently, Strategic Insight has stopped calculating an average across all funds, but rather calculates median figures for various types and sizes of funds. Table 6.2 shows the medians for a sample of these for 2003. The allocation of this advisory and administration fee amount between back and front office varies from fund to fund, but in most actively managed funds, the back office share of this amount is much lower than the front office share.

Custody is usually priced separately, since it is almost always provided by a separate organization. Strategic Insight reported that custody fees averaged only about two basis points across all funds in 1998. In 2003, custody fees for larger funds (over $1 billion in assets) were even lower, ranging from an average of less than one basis point for money market funds to just under two basis points for equity funds. Over the past ten years, custody fees have been driven down dramatically through competition. In 1992, State Street Bank contributed significantly to industry price competition when it won the custody business of the California Public Employees Retirement System (CalPERS), one of the largest pools of managed money in the country. To win the business, State Street offered fees 50 percent lower than the then-prevailing rate for custody.[16] This fierce price competition has fueled industry consolidation, with such competitors as J. P. Morgan and Morgan Stanley selling their custody portfolios and exiting the business.

Table 6.2 Selected Advisory and Administration Fee Ratio Medians for 2003, by Fund Type and Portfolio Asset Size (fee medians in basis points).

	Assets		
Fund Type	**$1 Billion +**	**$250-500MM**	**$25-50MM**
Large-Cap Growth	65.0	75.0	75.4
Mid-Cap Growth	66.8	76.2	54.2
Small-Cap Growth	72.9	96.4	75.7
World Stock	68.7	92.8	89.7
Short-Term Bond	42.0	41.1	24.1
Muni National Long	46.8	50.6	60.0
General Money Market	37.5	32.0	35.3

Source: Strategic Insight Simfund, "Annual Update: Mutual Fund Industry Fee and Expense Benchmarks Fiscal Year 2003," June 2004

Compliance and risk monitoring costs are impossible to determine because they are always bundled within a larger package of services. They are usually part of the fund administration services provided by the management company. The actual procedures may be carried out by staff working for the investment manager, the fund administrator, the custodian, or a combination of these.

The Back Office at David L. Babson

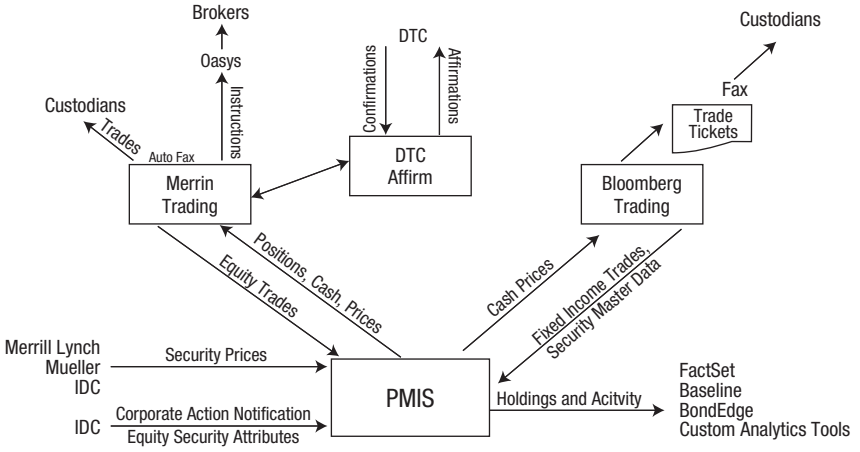
David L. Babson, a major contributor to the development of growth stock investing, founded his namesake investment management firm in 1940. He managed the company until he retired in 1978, and in 1995, Massachusetts Mutual Life Insurance Company acquired it. In late 1999, David L. Babson & Company (DLB) managed about $17 billion for mutual funds, institutions, and individual investors. In this respect, it resembled many U.S. investment managers who manage money for a variety of products, some of which are open-end funds. DLB managed money for the David L. Babson fund family, the Babson and Jones family, and a handful of others (for which they were subadvisor), totaling about $12 billion. The other $5 billion was held in about 200 accounts for institutions such as pension plans and endowments, and for about 500 high–net worth individual investors and wrap accounts.

For most of its existence, DLB had no separate back office. Each portfolio manager had an assistant who settled trades, maintained data, managed custodial relationships, and produced reports. In 1997, growing volume prompted DLB to create a centralized back office for greater efficiency. Joanne Yetka, who had worked at fund giants Fidelity and Putnam, came in to manage the new operations group.

Joanne described how the back office works in late 1999. "Our operations can best be summarized by considering the computer systems we use to support them. We have three major investment support systems: Merrin for equity trading, Bloomberg for fixed income trading, and PMIS, our portfolio accounting system, to keep the books of record for the portfolios [Figure 6.4]. All the trades are captured into one of the two trading systems on the day they are executed. Each day these systems transmit their trades to PMIS. Bloomberg also sends PMIS security information about any fixed income issues being acquired for the first time."

Brandi Peachey and Rachel Ventresca on the trading desk make sure that the 9,000 or so trades Babson makes in a typical month settle properly. Babson's Merrin system connects to Oasys (a vendor system for communicating trade orders and executions among brokers and institutions), and they use this to transmit allocations—which account gets what share of a trade—to the

Figure 6.4 Systems support for the back office at David L. Babson.



brokers. Brandi deals with any exceptions or questions that arise in this process. Rachel deals with affirmations to DTC. "DTC routes all the confirmations to us, and Merrin automatically matches and affirms the equity trades," she says. "We print out the confirmations for the fixed income trades, and then manually enter the affirmations for them into DTC's system." Rachel deals with exceptions and problems in this process. "We seldom, if ever, have a problem settling a trade for one of the funds," she points out. "Usually if there is a DK, it is for one of the individual accounts, where something has changed about the settlement instructions and the broker hasn't picked this up."

Brandi and Rachel notify the custodians of trades via fax. Equity trades go out via auto-fax: a Merrin feature that electronically generates and sends faxes. For fixed income trades, they print a paper trade ticket, and then manually fax that to the custodian. The nine David L. Babson funds all use Investors Bank & Trust (IBT) as their custodian. The institutional and individual investor accounts, however, use a total of over 100 custodians among them.

Joanne continued to describe the operations. "PMIS keeps the inventory—the books of record. PMIS posts trades as they come from the trading systems. To keep a correct inventory and do our reporting, however, we also have to maintain our security master records, and post securities prices and corporate actions. Some of this activity, such as the pricing feeds from Merrill Lynch, Mueller, and IDC, and the simpler corporate action notifications from IDC, are largely automated. Others require manual intervention." Susan Fowler in Portfolio Administration handles these.

Susan described her role in security master maintenance. "For new fixed income securities that Bloomberg Trader sends, I just have to add our industry group codes, custom security type, and description information. Everything else gets set up in PMIS automatically. When the equity managers acquire a security we don't already own, we have to enter a new security master record on PMIS manually. I get a copy of the trade ticket, and go onto the Bloomberg information terminal to get all the data about the security. Then I use PMIS screens to create the new security master record." In late 1999, Babson accounts held slightly over 10,000 different securities among them, adding several new ones on a typical day.

Susan described her role in handling pricing and corporate actions as mostly one of dealing with exceptions. "Most of the prices come in on the feeds and post automatically. Sometimes we'll find that we didn't get a price, usually for a thinly traded bond, and we'll have to call a broker, and enter the price manually." She also looks up and enters interest rates for a few floating rate notes and factors for a few mortgage-backed securities that do not come automatically on the electronic feed.

For corporate actions, she manually enters the more complex ones that aren't automatically posted from the IDC feed. The Exxon-Mobil merger on November 30, 1999, for example, required such manual intervention. Exxon holders converted each share of Exxon to one share of Exxon Mobil Corp. Mobil holders exchanged each share they held for 1.32015 shares of the new Exxon Mobil stock. Each day Susan monitors the capital changes notifications faxed out by CCH, Incorporated, and checks to see which are held in Babson accounts and must therefore be processed. PMIS automatically captures and processes straightforward corporate actions—cash and stock dividends and plits—and these she merely verifies.

Joanne described how the data in PMIS are used. "Merrin needs to be refreshed each night with the current holdings, as well as cash balances and prices. Bloomberg keeps track of the fixed income inventory itself; we just pass cash and prices to it. This information is also downloaded to a number of systems the portfolio managers and analysts use to support their decision making. Many of the equity managers use FactSet and BaseLine for portfolio analytics; the fixed income managers use BondEdge. And, of course, some managers and analysts have their own customized tools, built in Access or Excel, into which they load their data. We have to support all of these."

Greg Volpe handles portfolio administration for the mutual fund accounts. Each day he reconciles the cash balances at the custodian for each fund with the cash balances in PMIS, making whatever adjustments are needed. At the end of each month, he reconciles the security positions between IBT and

PMIS. "Any discrepancies we see are almost always related to timing," he says. "The bank's records are settlement date-based—that means they don't post a trade until the day it settles. Our records in PMIS are trade date-based—we post each night the trades executed that day. So at the end of the month, we're off by three days' worth of trades. Once we account for this, the records almost always match, and on the few occasions they haven't, it's always been due to a failed trade."

Portfolio compliance checking at Babson is divided among several entities. Babson's general counsel is also the compliance officer, and he is ultimately responsible to the fund directors for ensuring that compliance monitoring is performed. The portfolio administration group has loaded compliance rules into the two trading systems so that they can perform pre-trade checks. The portfolio managers and traders deal with exceptions that these pre-trade checks uncover. The Babson funds have engaged IBT, the custodian, to perform periodic post-trade compliance evaluations, and to report the results to the compliance officer.

Dan Wright, senior vice president in charge of both investment operations and information technology, described their task as one that never ends. "We have a pretty good system and organization setup now, but we can't stop here. We need to get to straight-through processing, so we're ready when T+1 hits. Next month, we'll start detailed evaluation of a new, integrated suite of software, which, if it works as advertised, will get us where we want to be. We could build interfaces, and satellite systems, but that's not our philosophy. We don't want to be a software development company. We want to use software just as it comes out of the box. So, we keep looking for something that can come out of the box doing what we need."

chapter 7 | Fund Accounting, Audit, Legal, and Other Support Functions

The 1940 Act's main concern is the integrity, accuracy, and security of mutual fund investment portfolios and operations. One aspect of that concern is the Act's attention to the financial and other records of funds and to their outside accountants.

— *Mutual Fund Law Handbook* (1998)[1]

All asset managers perform the front- and back-office functions described in the previous chapters, regardless of the products they offer—mutual funds, pension investments, or trusts. They make investment decisions, or order trades, execute and settle the trades, keep records, and monitor their contractual and regulatory compliance and exposure to risk. This chapter discusses investment management functions specific to mutual funds. These include fund accounting, auditing, legal support, and other compliance and reporting functions often termed "fund administration."

Fund Accounting

Every investment manager, whether or not he or she manages assets for a mutual fund, must do some form of investment accounting. The back office keeps securities inventory records so that the portfolio manager and others in the front office have accurate, current information on which to base investment management and trading decisions. Registered mutual funds have additional, stringent accounting requirements laid out by the 1940 Act and subsequent regulation. These are so specialized that many investment managers deploy two separate layers of accounting—one to provide data for investment decision making, and one to perform fund accounting in accordance with the regulations. Often they contract with specialized service providers to perform their 1940 Act fund accounting, while maintaining their own internal portfolio accounting

system for control and decision-making purposes. For example, David L. Babson, described in the last chapter, maintains the securities inventory for all its accounts internally on PMIS, but contracts with IBT, the custodian for the mutual funds holdings, to perform fund accounting for them.

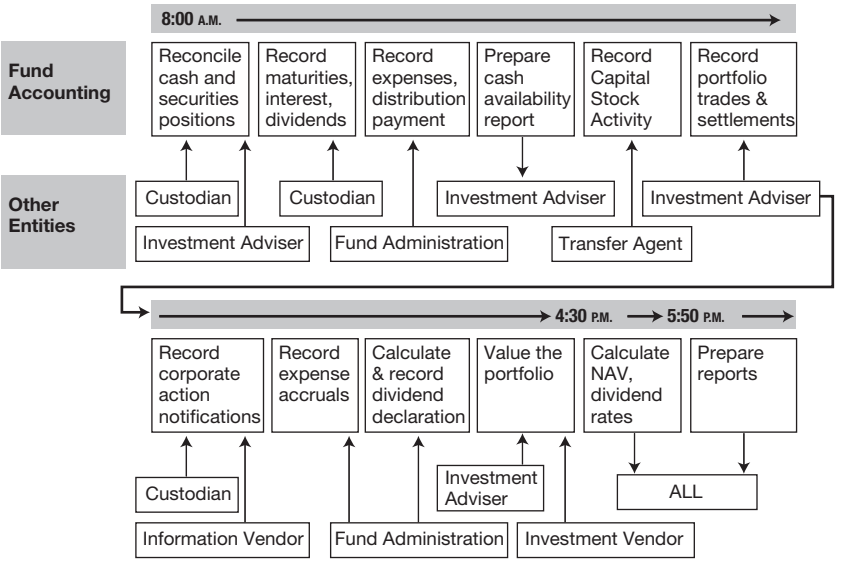
The fund accounting group, be it internal or external, keeps the fund's general ledger and books of record. It produces the information that goes into the semiannual reports for the shareholders and the regulators. However, one requirement dominates the fund accounting job—the need to establish the net asset value (NAV) per share for the fund every business day between 4:30 and 5:50 PM Eastern time. One journalist has described this process as "hours of preparation followed by minutes of intense number crunching," and characterized its routine success as "a small miracle."[2]

Rule 22c-1(b) under the 1940 Act requires that an open-end fund compute the NAV per share at least once each business day—Monday through Friday, excluding holidays listed in the prospectus, days the NYSE is closed, and days on which the fund received no orders to purchase or redeem shares. A fund may calculate the NAV more often than once per day, but very few do. The fund's directors must set the time during the day for calculating the NAV [Rule 22c-1(d)], but for all practical purposes, funds do it between the time the NYSE closes (4:00 PM) and the deadline for getting prices to NASDAQ (5:50 PM).

Figure 7.1 summarizes this daily activity in the typical fund accounting group. Fund accountants spend most of the day preparing to strike the NAV, posting activity and making sure that the ledger records are correct. They generally start by reconciling the cash and securities records they maintain with those maintained by the custodian and the investment advisor. Events such as trade failures, unexpected corporate actions (e.g., a dividend comes in that no one expected because someone missed the notification), or mistakes (e.g., the custodian posts a receipt to the wrong fund) may cause the records to need correction. Fund accountants compare information they get from the advisor or custodian, or, if they have automated reconciliation systems in place, resolve exceptions that these systems reveal. Where needed, they make changes to the inventory of cash and securities maintained in the fund accounting system.

Next, the accountants update those cash and securities records with the effects of the day's activity not related to trading. Bonds make interest payments or mature, dividend payments on equities come in, mortgage-backed securities generate paydowns, combining both principal and interest payments. All of these change cash or securities balances. Each fund accountant reconciles the report of activity from the custodian with the fund accounting system's projec-

Figure 7.1 Summary of daily activities of fund accounting.



tions for the fund. When they find discrepancies, the accountants investigate and resolve them, and make any needed adjustments to fund records.

Fund accounting may or may not provide the investment advisor with a report on cash availability (in many cases, the advisor manages cash separately from fund accounting). When accounting does this function, it gives the advisor a report of cash on hand, as well as projections of the cash flows expected over the next few days. These flows stem both from portfolio activity (trade settlements, maturities, dividends, and interest) and shareholder activity (share purchase and redemption settlements, dividend payments to shareholders). This helps the advisor to anticipate cash availability and needs, and to plan investment strategy accordingly.

Next the fund accountant updates the fund's records to reflect the previous day's activities. Investors placed orders yesterday to purchase and sell fund shares, and these were processed at yesterday's NAV. This capital stock activity has changed the number of shares outstanding in the fund, and has generated a cash flow.

The fund's records must reflect the proper number of shares to support calculating today's NAV per share. Similarly, the portfolio manager placed buy and sell security trades yesterday. The fund books recognize portfolio trades on T+1, i.e., on the day after the trade was made. Posting the fund trades is a computerized process in many accounting shops—trade records are

fed into the fund accounting system from the advisor's trade order or portfolio management systems. In these cases, the accountant reviews control reports, makes sure the process worked correctly, and resolves exceptions.

During the day, the accountant posts three more items to the fund's records in the fund accounting system: corporate actions, expenses, and fund dividends. Notifications of upcoming corporate actions for equity securities (dividends, stock splits, and the like) come in from information vendors and from custodians. Some of the simpler actions, such as cash dividends, can be posted automatically to the system from electronic feeds. Others, such as reorganizations, require manual intervention because of their complexity. The fund accountant makes sure that all these corporate actions for securities the fund holds have been identified and properly captured in the system.

The fund's NAV each day must include all the expenses the fund has accrued through that date. Some expenses that accrue regularly day by day (such as the fund directors' compensation) or that can be calculated based on a set formula (such as the investment advisory fee) are determined automatically by the fund accounting system. For these the fund accountant must set up the rules initially, then monitor the accounting system's calculations each day. Some expenses are not so regular (such as the cost of getting outside counsel's advice on an SEC letter), and the accountant must enter these when they occur. These expense accruals form liability accounts on the fund books. Many funds today have more than one class of shares, and often fund accounting must accrue expenses for these classes differently, ultimately resulting in a different NAV per share for each class.

In order to qualify for tax pass-through status, funds must pay out to their shareholders essentially all of the dividend and interest income they receive, as well as the capital gains they realize from security sales. Funds that hold dividend or interest-paying securities pay dividends to their shareholders on a regular basis—monthly, quarterly, semiannually.

Growth-oriented funds holding equity securities that seldom pay dividends may distribute income and gains as infrequently as once per year, if at all. On those days on which a dividend or capital gain payment is to accrue to the fund's shareholders, fund accounting determines what amount the shareholders should get.

This information is passed to the transfer agent, which ultimately calculates the distribution amount for each individual shareholder and makes the payments.

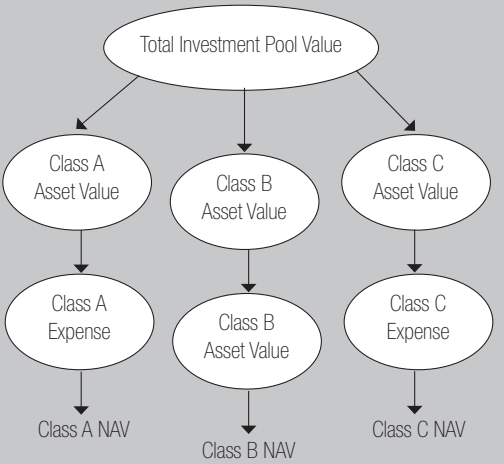
Finally, at 4:00 PM Eastern time each business day, once the New York Stock Exchange closes, fund accounting launches into the flurry of activity that marks the daily NAV calculation. Step 1 in the process is to determine the price at which to value each of the fund's securities holdings. Rule 2a-4 of

Share Classes

Section 22(d) of the 1940 Act requires that the price each investor pays for a fund share be described in the prospectus and calculated according to a scheme applied uniformly to all shareholders. Up until the 1970s, this requirement presented no particular issue. Investors in no-load funds bought their shares at NAV; investors in load funds paid the offering price—NAV adjusted for a front-end load. Effectively, every shareholder in a fund bought the single class of shares offered by that fund.

Rule 12b-1, promulgated by the SEC in 1980, started to change this. Rule 12b-1 allows management companies to use fund assets to pay for distribution. This opened an avenue for fund companies to create other distribution payment schemes besides pure no-load or front-end load. In the years since 1980, fund companies have created literally dozens of such schemes.[3] Rule 22d-1 of the 1940 Act regulations allows them to do this so long as any such scheme applies uniformly to all shareholders that belong to the class so affected. As a result, many funds today feature multiple share classes, reflecting different distribution strategies (discussed in detail in Chapter 8).

From the point of view of fund accounting, different share classes mean different expense amounts applied to subsets of the overall investment pool, as shown in the diagram. The first step in determining the NAV per share for a multi-class fund is to determine the asset value for the overall portfolio and allocate it to the classes. The investors in each class participate in the ownership of the fund in proportion to the number of shares that each class owns. The second step is to apply expense accruals for each class. Expenses vary by class—some classes will have 12b-1 fees deducted, others will not. Finally, once the appropriate expense accruals have been netted against the gross asset values, the NAV per share for each class is calculated by dividing the class' net asset value by its number of outstanding shares. These figures are reported separately to NASDAQ, and shown separately in the newspapers.



the regulations requires that this be the current market value, unless no market quotation for the security is readily available. Most holdings for most funds have a readily available market value: They have been trading during the day that has just ended, or a broker has committed a bid price, or there is a well-defined formula for calculating the price based on the price of other securities.

For some securities that have not traded and for which no market price is known, the assets must be priced at fair value, as determined in good faith by the fund's board of directors. For example, in late 1997, a Fidelity representative said that "Fidelity uses fair value to price roughly 1,500 securities every day—mostly bonds and other instruments that don't trade actively on major exchanges."[4] This 1,500 represents a small fraction of the tens of thousands of issues the various Fidelity funds hold.

However, in 2003–2004, a growing number of mutual fund complexes have been using "fair value" procedures to update the closing prices of equity securities traded in foreign markets because those prices often don't take into account significant developments, including U.S. market activity, which occurred after the market close (see the boxed section "Fair Valuation"). Once the accountant is satisfied that each security has a good price associated with it, the portfolio can be valued. Valuation means calculating the total value of the fund's assets by extending quantity by price for all securities holdings,

Buying Realized Gains

In order to satisfy the requirements for pass-through tax status and avoid paying tax at the fund level on income and realized capital gains, a mutual fund must distribute substantially all income and gains to its shareholders each year. Funds that generate income (dividends and interest) typically distribute this income regularly throughout the year. However, many funds distribute the entire year's realized capital gains (i.e., the net gains they have made in selling portfolio securities) during the last few months of the year. According to the IRS code, if the fund declares the distribution in October, November, or December, it is considered paid in that tax year, even though the payment to the shareholder doesn't occur until after year-end. So, many funds simply wait until late in the year when they can calculate the year's gains, and make one distribution of them all.

An investor who purchases shares of a fund into a taxable account shortly before this payment is made purchases a tax liability. (If the shareholder is purchasing shares for a retirement or other non-taxable account, then these tax considerations do not apply.) A specific example best demonstrates this.

American Century Ultra, a mid-cap growth fund, distributes its capital gains once per year. In 1998, it declared a capital gains distribution of $3.12 per share for shareholders in the fund as of the start of day December 18, payable on December 31. On December 17, the last day one could purchase shares and qualify for the payout, the NAV for the fund was $34.06. The next day, it dropped to $31.37, since someone purchasing shares this day would do so "ex-dividend"—that is, he or she would not get the gains payment. (The net $2.69 per share drop in NAV resulted from the combination of the $3.12 per share gains payout offset by market price movement in the fund's portfolio of securities.)

A shareholder who purchased $10,000 worth of the fund immediately before it went ex-dividend would have received 293.600 shares. He or she would have then accrued a distribution of $916.62, and the value of the shares would have dropped to $9,210.23 (293.600 shares times the December 18 NAV of $31.37). Had the shareholder used the distribution to purchase $916.62 worth of shares at the December 31 reinvestment price of $31.41, he or she would have ended up with a total of 322.782 shares (worth $10,784.16 at year end), but would have the tax liability on the $916.62. A shareholder who waited until December 18 to make the $10,000 purchase would have bought 318.776 shares at $31.37, but would have received no gains distribution and incurred no tax liability. Those shares would have been worth $10,650.30 at year end.

So which is better—$10,784 worth of fund with the tax liability on a $917 distribution, or $10,650 worth of fund and no tax liability? In this scenario, purchasing on December 18 instead of December 17 would have been a better choice for anyone with a marginal tax rate greater than 15 percent. But the figures change for any other purchase date (for example, if the investor had purchased the shares on December 15, when the NAV was $33.46), because the NAV changes each day. For someone looking at purchasing into a fund that will pay its distribution several weeks out, the picture grows cloudy. A distribution looming in the immediate future might justify delaying a purchase, but delaying for distributions too far into the future is a bad idea because the investor cannot predict market action. The investor considering a share purchase near year end should do some homework, analyzing the likely size and timing of a gains distribution, as well as the volatility of the fund's prices. Of course, all of these factors are uncertain, so there will never be one right answer.

The taxes shareholders pay on realized capital gains form another point of contention between the advocates of passive versus active management. An actively managed fund is more likely than an index fund to sell holdings, generate realized capital gains, and have to distribute these to shareholders. The shareholders, therefore, will have to pay taxes sooner (as a result of the fund's portfolio activity), instead of later (when they finally sell their fund shares). Some fund managers have recently launched funds that are managed explicitly to avoid having shareholders have to pay tax on portfolio income or gains. The prospectus for the Vanguard tax-managed funds, for example, states that the funds "aim to minimize the impact of taxes on investors' total returns by operating in a tax-efficient manner," i.e., by minimizing portfolio turnover, avoiding income-paying issues, and imposing a redemption fee on short-term investors.[5]

In June 2000, Representative Jim Saxton (R-NJ) floated a proposal to change the tax treatment of mutual fund distributions: to eliminate the tax that shareholders pay on capital gains that the fund has realized but that they (the shareholders) have not. In other words, Saxton proposed to defer taxes on gains shareholders receive but reinvest in the fund. They would pay taxes on these gains only when they eventually liquidate their holdings. However, as of late 2000, there was no sign that Congress might actually pursue this proposal. Representative Saxton reintroduced this proposal in 2003, but the Congress as a whole has not pursued it.

summing these, and adding in non-security assets such as cash, accrued interest, and prepaid expenses. Liabilities, mainly accrued expenses (but also including payables for unsettled security purchases and redemptions of the fund's shares), net against this gross value to produce the net asset value. The accountant divides the net asset value by the number of outstanding shares to arrive at the net asset value per share. This figure is transmitted to NASDAQ by 5:50 PM, so NASDAQ can distribute it to all interested parties, including the news services, so it shows up in the next morning's paper. It also goes to the fund's transfer agent, so that the day's shareholder transactions can be priced (more about that in Chapter 11). Most of the time, most of the funds hit this deadline. Occasionally, when the underlying securities markets are exceptionally active, delays in getting securities priced may prevent funds from getting priced. For example, on October 28, 1997, when volumes on the exchanges were more than twice normal, a number of fund groups with hundreds of individual funds were unable to calculate NAVs before the NASDAQ deadline.[6] If pricing or other problems prevent fund accounting from striking the NAV per share in time to make the NASDAQ cutoff, the papers report N/A for the fund's NAV the next day. Funds face no explicit sanction for missing the NASDAQ cutoff, but doing so is embarrassing, and a fund company draws the SEC's attention if it posts N/As too often.

Money market funds present an exception to the way mutual funds are priced. Since they hold short-term fixed income securities, the price of which should not fluctuate widely while the fund is holding them, the fund's NAV per share remains constant at $1.00. If the fund knows it is going to hold a security to maturity, it may value it using amortized cost rather than the current market price (unless, of course, something bad happens to the security that threatens the fund's ability to get face value at maturity). The income that these securities generate accrues each day to the fund's shareholders. Thus fund accounting for a money market fund concerns itself primarily with calculating this income accrual (and making sure that nothing has threatened the $1.00 NAV). To be able to use the amortized cost valuation method, however, mutual funds must comply with SEC Rule 2a-7, which places stringent conditions on the composition of the funds' portfolios—most notably, limiting investments largely to the highest-rated short-term securities and requiring an average portfolio maturity (considering interest rate reset dates for variable-rated securities) of 90 days or less. Additionally, fund accountants are required to regularly—though not necessarily daily—value the portfolios at market prices just to make sure that a market-based NAV is not beginning to diverge from $1.00 per share.

"Fair Valuation"

The valuation of foreign securities, particularly equities, has garnered increasing attention over the past several years with the continued globalization of the securities markets. The main reason for the concerns was simply the clock. For example, as people sleep in Boston and New York, the Asian securities markets are open and active; by the time U.S. "East Coasters" get up the next morning, those markets are closed for the day. Generally, for much of the 1990s, those local closing prices were used to value mutual fund portfolios as of 4 PM Eastern U.S. time the next business day as they represented the last traded price, even though they were twelve or more hours old at the time. (The same was true of prices in European markets, although the time differential was smaller.) Gradually it became evident to some investors that activity in the U.S. markets—both in American Depository Receipts of shares traded in those foreign markets, and even trading activity in U.S. stocks themselves—could indicate next-day foreign market price movements. Thus, some began to engage in "time-zone arbitrage," by purchasing shares of foreign stock funds on days when U.S. markets showed substantial gains, then selling the shares the next day after the foreign market prices predictably rose. This legal, but aggressive, practice also became known as "market timing."

In the late 1990s, a few mutual fund groups began to counteract "market timers" by "fair valuing" their foreign securities on days when large changes occurred in U.S. markets. They did so by such means as adjusting the last quoted prices on designated foreign markets by some fraction of the change in U.S. indices, based on historical relationships between U.S. market movements and next-day changes in their counterpart foreign indices. The extent to which "market timers" were active, and the potential effectiveness of "fair valuation" to restrain them, came into stark relief in late 1998 when, overnight, Asian and European stock markets suffered large losses, and the contagion was expected to follow in the U.S. Indeed, U.S. markets began the day substantially lower, but recovered during the day, with the foreign markets following suit the next day. A few mutual fund groups activated their "fair value" procedures at the close of the U.S. market to adjust the lower foreign prices for the end of the slump. "Market timers" complained to the SEC that this practice, which they claimed had not been well disclosed in fund prospectuses, denied them the opportunity to make overnight gains! The SEC duly investigated and, not surprisingly, was not sympathetic. Instead, in late 1999, the SEC staff issued a letter that, while recommending that "fair valuation" practices be more clearly described in fund prospectuses, generally endorsed the practice when "significant events" occurred in foreign markets and recommended greater usage by the fund industry as a whole. Another similar letter was issued in 2001.

While the SEC letters did begin to encourage some fund groups to expand their "fair value" procedures, adoption was erratic. However, in the meantime, sensing the potential for large profits with little risk, professional investment managers devoted increasingly sophisticated analytical firepower to mutual fund trading strategies, developing computer programs to track correlations between U.S. and foreign markets in depth and identify particularly profitable trading opportunities, sowing at least some of the seeds of the

"late-trading" and "market-timing" scandals. Only in their aftermath did the mutual fund industry in general begin to adjust foreign market closing prices on a regular, consistent basis, assisted by pricing services which themselves began to introduce sophisticated, verifiable analytical models to update the last closing prices of individual foreign securities for U.S. market activity. Now, many investment advisors with international funds substitute last quoted market prices with "fair values" either entirely on a daily basis, or on days when U.S. markets change by even fractions of 1 percent.

Once the prices are out, the fund accountants produce reports, or, more accurately, the fund accounting system produces reports. These go to the investment advisor, fund administration, the management company—anyone who has a stake in the fund's operations. They include information on the fund's status and activity, such as a current inventory of holdings, a summary of the day's trade and other activity, a recap of the pricing activity and results, and, possibly, compliance monitoring reports (described further on).

The number of funds one accountant can handle varies with the complexity of the funds. A PricewaterhouseCoopers study found in 1998 that the typical ratio varied from one to four funds per accountant, with the overall average being 2.3.[7] Some fund accounting groups organize parts of their staff functionally, with individuals specializing in corporate actions, expenses, etc. Others take a purely fund-based approach, with individuals performing all the functions required for the fund or funds for which they are responsible. Regardless of the organization, each fund will have an assigned accountant to make sure that all the preparatory steps are taken during the day, and to shepherd the fund through the NAV process.

While some management companies perform fund accounting in-house, many give this function over to third-party service providers. Fund accounting does not provide any potential for competitive advantage—it must be done correctly, but there is no way to make the fund more attractive by doing it better. Therefore, most funds seek the provider that can do it correctly and reliably at least cost. Most very large fund groups can realize the economies of scale to do it internally. Most smaller fund groups outsource it.

Table 7.1 shows the major third-party fund accounting providers in the United States as of late 2003. A comparison of this list with the list of custodians in the previous chapter shows much overlap. The custodian already has much of the data needed to support fund accounting, and is committed to making the large investment in information technology for securities processing. Fund accounting provides a natural, revenue-generating extension to custody, and many providers pursue it.

Table 7.1 Third-Party Fund Accounting Service Providers for '40 Oct. Mutual Funds (Funds and Assets as of December 31, 2003).

Organization	Number of Funds	Total Assets ($ millions)
State Street Bank and Trust	4,148	2,419,517
PFPC, Inc.	890	508,135
JPMorgan Chase Bank	465	286,049
Investors Bank	801	273,628
The Bank of New York	348	256,922
BISYS Fund Services	576	238,731
State Street/PAS	426	190,853
SEI Investments / Oaks, PA	374	160,000
U.S. Bancorp Fund Services	376	105,022
Northern Trust	54	51,000
Brown Brothers Harriman	94	34,498
Jackson Fund Services	76	8,758
Integrated Fund Services	64	7,600
ALPS Mutual Fund Services	50	7,160
Citigroup Global Transaction Services	42	6,805
UMB Investment Services	42	5,406
Ultimus Fund Solutions	41	3,192
Citco Mutual Fund Services	40	1,658
Unified Fund Services	52	1,174
Mutual Fund Services Company	12	546
Totals	8,971	4,566,654

Source: The 2004 Fund Accounting Service Guide, Thomson Media, *2004*

The annual cost of fund accounting found among the participants in the 1998 PricewaterhouseCoopers study ranged between .4 and 2.7 basis points. The actual amount depends on such factors as the characteristics of the fund (e.g., the types of securities it holds and how difficult they are to price, the amount of trading it does), and the economics of the contract the fund complex has with the accounting provider (e.g., whether fund accounting is done internally or outsourced, whether fund accounting is bundled with other services, how many funds the fund accountant handles).

Breaking the Buck

Money market mutual funds try very hard to maintain a constant $1.00 NAV. Although they are not legally required to maintain this price, "breaking the buck," i.e., letting the NAV fall below a dollar, is tantamount to admitting abject failure. In effect, it says that the investment advisor was so inept that he or she couldn't even pick debt securities that would hold their value for the few days or weeks until they matured. Since breaking the buck means the kiss of death for a fund, a management company will usually subsidize a fund if there is a danger of having this happening, putting in its own capital to maintain the NAV.

When a fund does get into this danger, it usually results from a faulty risk assessment—that is, a debt security that the investment advisor thought was safe has turned out to have some sort of problem. The case of General American Life Insurance Company, which threatened a number of funds with the specter of breaking the buck, illustrates how this might happen.[8]

General American, a policyholder-owned seller of whole life insurance, fell into a variant of the ancient trap of borrowing short and lending long. To strengthen its financial performance, General American began issuing short-term funding agreements, instruments similar to short-term notes. These agreements had one feature that turned out to be very important—the buyer could demand that General American buy them back at par at any time upon seven days' notice. General American took the money and invested in conservative securities that paid 25 to 30 basis points more than they were paying the buyers of the agreements. In mid-1999, $6.8 billion worth of these funding agreements were outstanding.

Unfortunately, General American had a less responsible partner in the deal, ARM Financial Group, that was using its share of the proceeds to invest in much more speculative securities. When interest rate changes eroded the value of these investments, Moody's downgraded ARM, triggering a chain of events that forced General American to take over ARM's half of the agreements, along with the investments ARM had made with the proceeds. This in turn prompted Moody's to cut General American's rating of debt and financial strength from A3 to A2. And that started a run.

Within a week, General American had received demands to redeem $4.4 billion worth of the funding agreements, and it became clear that the rest of the $6.8 billion would shortly follow. The bond market simply could not absorb all the securities that General American would have to sell to raise the money for these redemptions, meaning that General American could not raise the cash to meet its obligations. General American faced insolvency, just like a depression-era bank with a line of depositors at the door. So in mid-August, the insurer turned to Missouri regulators, seeking protection to enable it to effect an orderly liquidation over a longer period.

Suddenly, some two dozen money market mutual funds found themselves with over $2 billion worth of funding agreements that they could not liquidate immediately. Alliance, Federated, Schwab, and Oppenheimer each held over $300 million of these securities among the funds in their families. Other fund families held lesser amounts. If anything happened to threaten General American's workout—if the bond markets tanked,

for example—they would be forced to recognize a significant decline in value of these securities. Some advisors began making plans for bailouts that would keep the funds' NAVs at $1.00 in case the American General workout failed, or shareholder liquidations forced them to sell the agreements at a steep discount. Alliance, for example, got a letter of credit from its parent, Equitable, to give it access to cash with which to protect its NAV.

Fortunately for the funds, a white knight rode in to save the day before things got too ugly. On August 25, 1999, General American agreed to be acquired by MetLife, ending its 66-year-life as an independent company. MetLife agreed to pay off the holders of the funding agreements immediately, in full. While Moody's grumbled for a while about possibly downgrading MetLife's ratings, the crisis was over for the fund companies. Within the next few weeks they unloaded all the agreements at face value, and nobody had to break the buck.

A Day in the Life of a Fund Accountant

Note: The following is based on an interview conducted in 2000.

State Street Bank performs the accounting for more open-end mutual funds than any other organization in the United States. Among these are the funds managed by one of the largest and oldest fund families in the industry (which we will call "L&O" here). Several State Street fund accounting teams divide responsibility for L&O, each doing the work for about two dozen funds. These teams occupy a sea of cubicles on the third floor of State Street's facility at Boston's Lafayette Place.

Russell Donohoe is a floater in one of these L&O teams. As a floater, his duties vary from day to day. When everyone on the team is in, Russell double-checks the work of other fund accountants, and helps out wherever there is a problem. When one of the team's fund accountants is out, Russell takes over his or her funds for the day. On this particular day in early December 1999, Russell is covering for a team member out on vacation, and is performing the accounting for seven funds—three fixed income and four equity.

The fund accountant's day at State Street runs from 10:00 AM to 6:00 or 7:00 PM. When Russell arrives in the morning, he starts his work on his assigned funds by verifying activity that others have already processed. "We have some specialized groups," he points out. "Corporate actions are handled for all funds by one centralized group. So are cash settlements and pricing. This allows the fund accountant to handle more funds—usually five or six funds for experienced staff." In addition, State Street is the custodian for the funds Russell is handling, so he doesn't need to manually reconcile custodial and fund accounting records.

After verifying the corporate actions postings for his funds (there weren't any on this day), Russell turns his attention to securities trades. The previous day was slow for the fixed income funds—only the emerging markets fund has made a trade, buying a Brazilian bond. He enters this trade into State Street's fund accounting system, Multi-Currency Horizon (MCH). MCH occupies one window on the 20-inch, high-resolution monitor on Russell's desk. NAV Alert occupies a second window. "NAV Alert is an analysis tool for us, but also a backup system," Russell explains. "Anything we enter into MCH is automatically fed to it. We use it to analyze impacts on the fund, and, if anything happens so that MCH is down, we could use it to prepare the fund for pricing as well." During Russell's two-year tenure at State Street, however, they have never had to use this backup.

Next, he turns to currency forward contracts that his international bond funds use to hedge their currency exposure, marking them to market with the day's exchange rates and checking the effect on the fund. He prints a page showing the results of the activity, marks it to note he has double-checked it, and puts it in a tray on the desk. From time to time other members of the team pick up these sheets and double-check them. Russell rechecks sheets that others have completed. "We like to have everything looked at by at least two pairs of eyes," he explains.

Around 11:00 AM, something unusual rolls in from the cash area. Several of the L&O bond funds, including one domestic high-yield fund Russell is handling, had held a bond that defaulted when the issuer went bankrupt. Now, apparently, the bankruptcy proceedings have resulted in the bond holders getting a cash payment. L&O has long since written off the holding, and no longer shows the bond in any fund's securities inventory. So the payment is simply booked as a long-term capital gain, not associated with any security. "First time I've ever seen something like this," he comments.

Equity trades for the L&O funds feed into MCH via an automated, computer-to-computer link called electronic trade delivery (ETD). For some reason, ETD is late today, so Russell still can't verify the trades for his equity funds. He checks the funds' expense accruals. The L&O funds are set up in MCH with two types of expenses. The system calculates some—the management fee and 12b-1 commissions—based on the value of assets in the fund that day. Others accrue at a fixed rate per day. For example, one fund accrues $15.76 per day for legal, $49.26 per day for director's fees, and so on. Three of the funds have multiple share classes, with some expenses that accrue at the composite level, and others at the class level. He verifies that these all have been calculated and posted properly.

As the day goes by, Russell continues to examine different aspects of the funds' books, verifying entries, occasionally making adjusting entries. Around noon he handles the income accruals for the bonds held by the fixed income funds. Shortly thereafter, he turns his attention to the changes in the fund's shares that resulted from yesterday's shareholder activity. Then it's the dividends the funds pay or accrue. None of his equity funds are hitting a dividend ex-date today, but the fixed income funds do calculate accruals. He does these calculations and posts them to the system. As always, he rechecks and documents what he has done, and tosses the file up to the mail tray for someone else to check.

By mid-afternoon Russell has completed the fixed income funds. For each of these he does a test pricing run, which calculates the NAV per share based on yesterday's securities prices. Once again he double-checks the effects on the NAV for each component of the fund's books. He examines anything that has a significant effect on the NAV. For the emerging markets debt fund, he finds an NAV impact resulting from a change in the value of the currency forward contracts. He checks this, and determines that it is valid, resulting from a large change in the exchange rate for Turkish lira. Satisfied that the fixed income funds are ready, he exports their data to external files so that NAVigator, State Street's pricing system, can pick them up and complete the NAV calculations once the securities prices are available.

At 4:00 PM, ETD finally delivers the trades for the equity funds. ("I've never seen it this late before," Russell comments.) Russell and the other members of the team work intensely to get the equity funds ready to price, verifying the correct posting of the equity trades. Around 4:45 supervisors start calling out "export, please," as the deadline for fund pricing approaches. Unless a fund's data has been exported, NAVigator will not pick it up and calculate its NAV. Russell finishes exporting all his funds, and turns to organizing and filing the mass of printouts that have accumulated on his desk.

Just before 5:00 PM, someone calls out "PPs are in," indicating that prices for the privately placed securities, usually the last to arrive, are in the system. The level of activity picks up noticeably. One corner of the floor on which the fund accountants work is devoted to computers for pricing. First, pricing specialists verify every security price that has changed by more than a stated tolerance from the previous day's price, by obtaining a second price quotation from another information vendor, such as Reuters or Bloomberg (primary prices come from Bridge). Once they have done this, and satisfied themselves that the prices are valid, they run "NAVcalc," the process that applies the security prices and calculates the NAV per share. Russell gets the output that shows the results of NAVcalc for his funds shortly after 5:00. Once again he

double-checks everything. "Does this NAV look reasonable in light of everything we did today? Is the overall change in NAV per share consistent with the impacts we calculated for the individual components?" Once he is sure that everything is correct, he designates the fund as "balanced," so the NAV per share can go on the transmission to NASDAQ at 5:50 PM.

At 5:25 someone finds a bad security price, and the NAVs for some of the funds have to be recalculated. ("This is a ripple effect from getting the equity trades so late," Russell comments. "We didn't have as much time as we usually do to check prices.") There is a flurry of activity as accountants work to complete and verify these funds before the 5:50 PM deadline for submitting NAVs to NASDAQ. At 5:48 PM the last fund is balanced, and all the funds make the transmission.

By 5:50, the tension and activity levels in the room have dropped noticeably. Russell and the other fund accountants get ten-page printouts summarizing the books for each of their funds. They do one final round of double-checking the figures, make sure every adjustment or reconciliation they made is clearly documented, and complete their filing, so that there are no loose ends left for tomorrow. Finally, as 7:00 PM approaches, all the accountants have finished their days, and the floor is deserted. State Street Bank's fund accountants have once more performed their daily small miracle.

Fund Audit

Like all publicly traded companies in the United States, a mutual fund must be audited each year by an independent auditor. It must issue an audited annual report to its shareholders, and include with its annual report to the SEC a letter from its independent auditor on the adequacy of its internal controls. These reports, along with the internal reports issued to management, form the visible output of the rigorous examination process that comprises the fund audit.

Audit of a mutual fund concentrates on whether the information reflected on the required financial reports presents fairly in all material respects the fund's financial position and operating results, in accordance with generally accepted accounting principles (GAAP). Much of the auditor's work is directed to examining the processes with which the fund keeps its records, especially the controls in place to ensure that those processes are performed correctly. In addition, the auditor performs substantive tests of the fund's records in five areas:

1. *Investments.* The 1940 Act itself requires the auditor to confirm all the fund's securities holdings (including unsettled purchases) as of the audit date with the custodian or brokers. The auditor also verifies the valua-

tions the fund has assigned to these securities, by independently obtaining prices (as required by SEC rule) for all securities as of the audit date, and comparing these to the prices used by the fund's accountants for that date. The auditor further reviews and tests the processes by which fund management monitors compliance with regulatory and prospectus restrictions on portfolio holdings.

2. *Investment income and realized gains.* The auditor tests whether all income earned by the fund's holdings has been recorded in the fund's financial records. It examines portfolio sales transactions, and tests the calculation and classification of capital gains. This examination of gains and losses typically includes a review for wash sales—securities dispositions on which capital loss is disallowed for tax purposes due to proximity to acquisitions of identical securities.
3. *Accruals and expenses.* The auditor examines expense records to determine whether they are in accordance with the provisions of the investment advisory agreement, prospectus, and other relevant contracts. The auditor recalculates the management fee and any other fees that are based on the assets of the fund, and compares them against the fees actually charged. Other expenses are reviewed for proper authorization.
4. *Taxes.* The auditor reviews the fund's compliance with requirements of the tax laws, especially those that allow it pass-through status. Should a fund fail to meet the requirements for pass-through status, the consequences (i.e., having to pay taxes at the fund level) would severely harm the fund and its advisor—through mass shareholder redemptions, bad press, and even litigation.
5. *Shareholders' equity.* The auditor reviews the internal controls of the fund's transfer agent (usually by considering a report on the results of a control examination issued by independent auditors for the transfer agent), and tests the computations of the net asset value per share that are used in the daily purchase and sale transactions for fund shares.

Finally, the auditor reviews the financial reports that the fund issues. Mutual fund financial statements typically include a year-end balance sheet, a statement of operations for the most recent year, and statements of changes in net assets for the two most recent years. In some cases, a statement of cash flows may also be required. Additionally, the statements include a five-year summary of financial highlights, and a schedule of *every* security holding as of the statement date, including name, quantity, value, type and category (industry or similar grouping). In a recent amendment to shareholder reporting requirements, the SEC allowed funds to present a condensed portfolio in

the reports mailed to shareholders, consisting only of the 50 largest holdings (by issuer) in the portfolio and any other holding of an issuer exceeding one percent of net assets, so long as the full portfolio was included in a report filed with the SEC and made available to any shareholder on request. While this new flexibility has only recently come into effect, at present it appears that only a few funds with very large portfolios are taking advantage of it, mainly to save on the costs of printing and mailing to shareholders something that at times began to resemble a small town's telephone directory.

The auditor's report for the Vanguard Wellington Fund, shown in Figure 7.2, is typical of those found in mutual fund annual reports. A mutual fund audit rarely results in a qualified opinion—that is, one in which the auditor notes any divergence from GAAP. The SEC would not permit financial statements with an opinion qualified for such a divergence (or for a limitation on the scope of the audit) to be included in a registration statement, thus effec-

Figure 7.2 Auditor's report for the Vanguard Wellington Fund.

REPORT OF INDEPENDENT ACCOUNTANTS

To the Shareholders and
Board of Trustees of
Vanguard Wellington Fund

In our opinion, the accompanying statement of net assets and the related statements of operations and of changes in net assets and the financial highlights present fairly, in all material respects, the financial position of Vanguard Wellington Fund (the "Fund") at November 30, 1998, the results of its operations for the year then ended, the changes in its net assets for each of the two years in the period then ended and the financial highlights for each of the five years in the period then ended, in conformity with generally accepted accounting principles. These financial statements and financial highlights (hereafter referred to as "financial statements") are the responsibility of the Fund's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these financial statements in accordance with generally accepted auditing standards which require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits, which included confirmation of securities at November 30, 1998 by correspondence with the custodian, provide a reasonable basis for the opinion expressed above.

PricewaterhouseCoopers LLP

Thirty South Seventeenth Street
Philadelphia, Pennsylvania 19103

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January 6, 1999

tively suspending further sales of the fund's shares. Therefore, as a practical matter, fund management must correct any shortcoming that the fund's auditor believes represents a material departure from GAAP. Rarely, however, do fund management and the auditors find themselves in an adversarial position over an accounting issue at year end. In the vast majority of cases, the auditors work with fund management throughout the year to identify troublesome practices and suggest corrections before they become audit issues.

The cost of auditing for an individual fund varies widely, from under $10,000 to over $50,000, depending on a number of factors. The least expensive funds to audit hold a relatively small number of easily priced securities, require only basic attestation services, and have their records kept by a complex whose internal processes the audit firm knows have been examined and found to be well controlled. More expensive audits are required for funds that hold large numbers of securities or especially complex or hard-to-price securities (for example, certain derivatives, private placements, or emerging-market securities), require extra services, or require that the auditor spend more time and effort examining internal procedures of the fund's record keeper. Large fund complexes that have many individual funds audited by one audit firm are often able to obtain lower audit fees, as the auditors are able to rely on common control systems and perform large numbers of audits simultaneously, allowing them to spread certain fixed audit costs over a larger number of funds.

Fund Legal Support

A number of fund activities require the support of attorneys, either employees of the management company, outside counsel, or, in many cases, both. The matters with which fund management typically needs legal work fall into several major groups.

- *Organization and registration of funds.* When a new fund is to be set up, attorneys work with the management company to ensure that all of the decisions concerning fund design and operations have been made in compliance with the regulations, and that these are properly documented in Form N1-A, the registration statement. Attorneys work with the management company not only on the original filing, but also on the post-effective amendments to the registration statement that the funds must file. Funds file post-effective amendments on Form 485APOS when there has been a material change, such as a revision of fundamental investment policies (or when a new fund in a series is being introduced). Funds file Form 485BPOS for non-material changes, including updated financial information. The difference between

what are known as "A" and "B" filings is that an "A" filing cannot be sent to prospective investors (that is, does not "become effective") for 60 days after the filing date, to give the SEC staff time to review and comment on the proposed changes; a "B" filing is presumed not to need SEC staff review and can be used immediately. Typically, each fund files a 485BPOS once per year, since the prospectus cannot be used if the financial information it contains is more than 16 months old. All of these filings require review by fund attorneys.

- *Drafting and review of contracts.* Since funds have no employees, but instead contract with outside parties for all their services, every fund must have a series of contracts drawn up and periodically reviewed and changed. The most common contracts include those for investment advisory, distribution, fund administration, transfer agent, and custody services. The fund's Board of Directors or Trustees is charged with overseeing these contracts, ensuring that the agents with which the fund has contracted are discharging their duties properly. For example, Section 15(c) of the 1940 Act requires that the fund's independent directors evaluate the terms of the investment advisory agreement on an annual basis, and requires their majority vote to approve or renew it. The management company uses legal assistance in preparing these contracts, and the directors use legal assistance to help ensure that they properly execute their responsibilities in overseeing them.
- *Ensuring compliance.* Attorneys work with management company staff to develop operating procedures that comply with the federal and state regulations. They also develop compliance monitoring and reporting processes that help the management company and fund directors verify that the fund is complying with regulations as it operates. For example, the directors of a money market fund are required by the regulations to adopt procedures through which they can ensure that the fund holds suitable securities, and that it maintains a stable net asset value.[9] Attorneys contribute to and/or review a number of documents that funds produce—such as advertising and sales literature, proxy statements, and shareholder letters—for compliance with the relevant regulations. Additionally, the SEC adopted a new rule which went into effect in October 2004 requiring each fund to have a "chief compliance officer" (CCO), appointed by and directly reporting to the fund's board. The CCO has the direct responsibility for assuring that processes and procedures are in place, both at the fund and its principal service providers (including the advisor, distributor, administrator, and transfer agent), to prevent violations of the

federal securities laws, overseeing the operation of those procedures, and reviewing them at least annually to assess whether they are adequate and effective. While the CCO need not be an attorney, it can be expected that the CCO will work closely with the fund's attorneys in overseeing the compliance function.

- *Interpretation of regulatory pronouncements.* The SEC issues dozens of rules, proposed rules, interpretive releases, and other pronouncements that affect mutual fund companies each year. Since these often have legal implications for the management company or fund, attorneys review them and evaluate their impact and advise management on how to respond. In addition, a fund may on occasion wish to employ a practice or enter into a contract which does not clearly fit under the Investment Company Act of 1940 or the SEC's rules and regulations. Many of the provisions of the 1940 Act and the SEC's rules permit the Commission to grant exemptions from various restrictions if it concludes that the practice is consistent with the protection of investors. As a result, the fund's attorneys may recommend that the fund seek a written opinion from the SEC to ensure the matter will not come under regulatory scrutiny later. These opinions can come in two forms—a "no-action letter," a written conclusion by the SEC staff that they consider the proposed practice consistent with laws and regulations, and an "exemptive order," a more formal exception subject to public comment and approval by the SEC's Commissioners. Often, if the staff or the Commission decides to permit the practice, they will do so under various conditions, frequently including some sort of periodic oversight by the fund's board. While both of these opinions apply only to the funds that request them, they are made public and attorneys regularly review them to assess whether funds that did not receive them might also engage in those practices. In fact, some major industry practices began when no-action letters or exemptive orders were received by individual fund groups. So many other fund complexes decided to obtain similar exemptions that the SEC adopted new rules to stop the flood of one-by-one requests—Rule 2a-7 for money market funds and Rule 18f-3 for multiple classes of shares, to name two.
- *Preparation for SEC examinations.* The SEC conducts examinations of fund groups from time to time, usually concentrating on some topic in which the SEC staff is particularly interested at the moment. (For example, the SEC conducted a number of examinations focusing on directed brokerage and soft-dollar arrangements in 1999.) Typically, the SEC

sends the fund company a letter ahead of time, identifying what records the SEC staff will want to see when they arrive. Attorneys review this letter to help the fund group respond to these requests, including identifying what is and is not applicable. In addition, attorneys may be called on to prepare further communications during the course of the examination to clarify issues that arise.

- *Representation in SEC or other legal proceedings.* Mutual fund management companies may become embroiled in legal proceedings just like other corporations or individuals. The SEC may institute enforcement proceedings, as it did in the cases of Piper Jaffray and PaineWebber (discussed in Chapter 6), if the staff believe that someone has acted illegally. Occasionally shareholders and others file suits against a fund's directors, management company, or investment advisor. In all such cases, the organizations or individuals involved must be advised and represented by counsel.

Legal expense varies considerably from fund to fund according to several factors. A fund uses more legal service (and pay more) when it is being set up or is making significant changes in its organization, when it is under regulatory scrutiny (such as an SEC examination), or when some external event, such as a merger or lawsuit, calls for unusual levels of legal work. Over 160 law firms provide legal services to open-end mutual funds, with no single firm controlling more than about seven percent of the market, according to Strategic Insight data as of the end of 2004.

Other Fund Administration Functions

People in the mutual fund industry use the term fund administration to mean different things. In its most expansive usage, fund administration refers to everything about running a fund that is not investment advisory or distribution. In its narrowest usage it means administering a fund's contracts with its service providers, and taking care of certain compliance and reporting functions. We use the term here in this latter, more restricted sense, distinguishing the major support functions such as fund accounting and shareholder servicing from fund administration.

Chapter 6 discussed portfolio compliance monitoring—the process of ensuring that the securities holdings of the fund remain in compliance with regulations and prospectus rules. Fund administration monitors and ensures fund compliance in a broader context as well. In addition to following the rules regarding portfolio composition, funds must comply with operating

requirements of federal and state regulatory agencies. (For example, they must monitor the personal securities trades made by all individuals deemed to be "access persons" for the fund.) They must follow the tax guidelines of the IRS and the individual state governments (as to when a municipal issue qualifies for state tax exemption, for example). They must file the required financial reports with the regulatory agencies (such as the semi-annual reports to the SEC). Responsibility for these compliance and reporting functions falls to the fund administration group.

Most often, this group is housed within the management company. Some service providers offer fund administration outsourcing, typically in conjunction with other services, such as custody, fund accounting, and shareholder processing. The amount and type of these administrative functions performed by the service providers account for some of the variation in fees that funds pay for investment advisory, fund accounting, custody, and legal service.

One may be able to determine how a particular fund's administration is handled by accessing the fund's registration form in the EDGAR database, available via the SEC's Web site. The SEC requires mutual funds to electronically file many of their submissions, including Form N-1A, the registration statement. Item 15—Investment Advisory and Other Services—in the Statement of Additional Information describes the fund's agreements with the investment advisor, principal underwriter, and other significant service providers. Item 29—Management Services—in the Other Information section provides a summary of any substantive provisions of management-related service contracts that have not been discussed in earlier sections.

For example, the Pioneer America Income Trust filed a post-effective amendment (number 14) to its registration on February 19, 1999, and this is available from EDGAR. As exhibits to this filing, the fund has attached not only the text of the administration agreement it has executed with Pioneering Management Corporation, but also a detailed list of services to be provided. These lists, which are organized into two broad categories—fund accounting, administration, and custody services; and legal services—are reproduced in Figure 7.3. The information in this registration reveals that Pioneering Management performs almost all fund administration for its funds internally, only using outside counsel for some legal functions. Other funds may take quite different approaches to obtain these services. For example, perusal of the November 30, 1999, post-effective amendment filed by the Eaton Vance Income Fund reveals that it contracts with its custodian, Investors Bank and Trust, for fund accounting as well as the preparation of shareholder reports.

Figure 7.3 Excerpt from Pioneer America Income Trust Form N1-A.

EXHIBIT 2: PIONEERING MANAGEMENT CORP.
Fund Accounting, Administration, and Custody Services (FAACS)
List of Services Provided to Pioneer Mutual Funds Services Listed by FAACS Team, or Functional Area.

FAACS Administration

- Provide direction, supervision, and administrative support to all FAACS teams
- Prepare or review and submit all tax reports for funds
- Oversee fund distributions for regulatory compliance
- Assist in planning for new product introductions

Fund Accounting

- Maintain all accounting records for funds
- Calculate and report daily net asset values per share and yields
- Recommend income and capital gains distribution rates
- Prepare funds' financial statements and assist in fund audits
- Maintain accounting records for institutional portfolios
- Perform periodic tests to verify each fund's compliance with its prospectus and applicable regulations

Global Custody and Settlements Division

- Enter portfolio trades into Fund Accounting records
- Support corporate actions analyses
- Validate trade data and communicate them to Custodian Banks
- Act as liaison with Custodian Banks for trade settlements, and security position reconciliations, and for relaying global market updates to Investment Advisor
- Provide daily cash reporting to portfolio managers
- Resolve trade disputes with counterparties

Pricing and Corporate Actions

- Ensure accuracy and timeliness of prices supplied by external sources to provide daily valuations of all security positions held by every fund
- Validate and communicate corporate/class action information to Fund Accounting
- Present monthly valuation report to funds' Board of Trustees
- Provide valuation and corporate actions services for securities held by institutional portfolios, but not by funds
- Provide systems support to users of fund accounting and portfolio pricing software, and manage relationships with applicable software and hardware vendors
- Develop and maintain custom applications and systems interfaces for FAACS teams
- Manage Year 2000 project
- Provide user support and vendor liaison for trading, compliance, and analysis systems
- Implement and manage systems interfaces with Investment Advisor, Custodian Banks, and other service providers

Figure 7.3 *(continued)*

PIONEERING MANAGEMENT CORP.
Fund Accounting, Administration, and Custody Services (FAACS)
List of Services Provided to Pioneer Mutual Funds Services Listed by FAACS Team, or Functional Area.

Shareholder Reporting and Audit Liaison

- Review and complete funds' financial statements
- Manage the Fund Audit process to ensure timely completion of shareholder reports
- Prepare reports related to contract renewals and soft dollar payments for Board of Trustees' review
- Provide financial information to Legal Department for prospectus updates and other regulatory filings
- Prepare regulatory reports such as N-SAR, Form S, and EDGAR filings
- Provide financial information to Pioneer management and industry trade groups
- Provide liquidity, commission, and soft-dollar reporting to Pioneer management

Funds Controller

- Manage fund expense payment cycles (e.g., timeliness and accuracy of payments, allocation of costs among portfolios)
- Coordinate and standardize fund expense accruals and forecasting
- Provide expense reporting to Fund Accounting, FAACS management, and auditors
- Compile daily reports of shareholder transactions from all sources (e.g., PSC, PMIL, BFDS, variable annuity agents, 401(k) administrators, third-party record keepers) for entry into fund records
- Provide daily reconciliation of receivable, payable, and share accounts between fund records and entities listed above
- Manage the daily estimating process to minimize "as of" gains and losses to funds
- Communicate daily fund prices and yields to PSC, PMIL, etc.
- Provide fund-related analyses to Pioneer management

EXHIBIT 3: THE PIONEER GROUP, INC. —LEGAL DEPARTMENT
Reimbursable Services:

Filings under Investment Company Act of 1940 and Securities Act of 1933

- Prepare and File (via EDGAR) Rule 24f-2 Notices (coordination with Pioneer Fund Accounting and Hale and Dorr LLP as necessary)
- SEC Electronic Filing (EDGAR) Responsibilities
  - Prepare Fund Registration Statements and Related Filings for filing on EDGAR and complete filings
  - Maintain and develop enhancements to Pioneer's EDGAR systems and procedures, including contingency planning
  - Maintain EDGAR-related databases and document archives
  - Liaison with third-party EDGAR agents when necessary
  - Prepare proxy statements and related materials for filing on EDGAR and complete filings

Figure 7.3 *(continued)*

Blue Sky Administration (State Registration)

- Principal liaison with Blue Sky vendor (Bluesky MLS, Inc.)
- Coordinate SEC filing schedule and fund documentation with Blue Sky vendor
- Monitor status of state filings with Blue Sky vendor
- Transfer Agent coordination
- Review vendor statements and invoices
- Conduct vendor due diligence, as appropriate
  - Hiring oversight
  - In-person meetings
  - Arthur Andersen audit

Miscellaneous Services

- Assist Pioneer Fund Accounting in the preparation of Fund Form N-SARs
- Managing internal participation in prospectus simplification project. Charge funds only for portion that relates to funds—this excludes work on behalf of distribution or management companies, including coordination internally.

Non-Reimbursable Services:

Filings under Investment Company Act of 1940 and Securities Act of 1933

- Maintain Pioneer Mutual Funds SEC Filing Calendar
- Interact as necessary with the staff of the investment advisor, distribution company, and transfer agent to ensure awareness of fund disclosure requirements
- Coordinate internal review of Prospectuses and SAIs
- Coordinate Hale and Dorr LLP review and internal review of Hale and Dorr LLP material
- Identify business and other situations that trigger requirement to supplement Prospectuses and SAIs

Proxy Statements

- Assist Hale and Dorr LLP in the preparation of proxy statements
- Coordinate internal review of proxy statements and related documents
- Review proxy-related materials prepared by the distribution company to ensure compliance with regulatory requirements
- Review the transfer agent's proxy solicitation efforts to ensure compliance with regulatory requirements
- Act as liaison between Hale and Dorr LLP and transfer agency staff with respect to the proxy solicitation process

Miscellaneous Services

- Monitor the preparation of shareholder reports by the distribution company
- Prepare and File (via EDGAR) Section 16 filings (re: Pioneer Interest Shares)
- Maintain Officer and Trustee Securities Holdings (fund and non-fund related)
- Code of Ethics Administration (as it relates to Disinterested Trustees)

Regulatory Oversight

- Monitor proposed changes in applicable regulation and inform appropriate Pioneer personnel of the proposals and impact on funds
- Act as liaison with Hale and Dorr LLP in the implementation of changes

Figure 7.3 *(continued)*

Special Projects

- Coordinate implementation of Document Directions software system (for prospectus production) purchased by Pioneer in late 1997
- Provide advice with respect to Year 2000 issues
- Prospectus simplification efforts on behalf of distribution or management companies, including internal coordination

Source: Pioneering Management Corp.

chapter 8 | Fund Distribution: The Broker Channel

Mutual fund companies have three choices. They can use brokers to sell the fund. They can pull in buyers through advertising. Or they can starve.

—*The San Francisco Chronicle* (1986)[1]

For over 40 years—from the passage of the Investment Company Act in 1940 until after the adoption of Rule 12b-1 in 1980—this description of how mutual funds were sold held true. During that period, the industry divided neatly into two camps: load funds sold through brokers who earned a commission on each sale, and no-load funds directly marketed to investors with no commission involved. Over the past 25 years, however, the industry has evolved into a much more complex and fragmented pattern of channels through which funds are sold.

Today, investors can buy funds via a wide variety of intermediaries as well as directly from the fund companies. They may or may not pay sales commissions and, if they do, they may pay them when they buy the fund shares, when they sell them, and/or periodically as they hold the fund. This chapter and the following two chapters explore these and other, topics in mutual fund distribution: how it evolved, how funds are sold to investors; the organizations and individuals who do this selling; how they are organized and compensated; and the attendant issues and controversies.

Overview of Fund Distribution

In the mutual fund industry, distribution means the process of selling a fund's shares to investors. The 1940 Act requires that an open-end fund stand ready to redeem any shares offered by shareholders on any business day. It does not require that funds sell shares every day, but most funds seek to do so, for at least three reasons. First, the funds use the proceeds of sales to gen-

erate cash to meet demands caused by shareholder redemptions. Without cash generated by fund sales, a fund would have to liquidate portfolio holdings to satisfy redemptions, thus impeding the manager's pursuit of the fund's investment objective. Second, management companies generally want their funds to keep growing, since investment advisory and many other management fees grow along with the value of the fund's assets. Finally, although this is the subject of some controversy, funds may achieve economies of scale through growth, so that a larger overall asset pool provides a lower expense ratio for all shareholders. The argument about whether or not this really happens is reviewed in Chapter 15.

Occasionally, a fund will grow so large that its size interferes with its advisor's ability to pursue the investment objective, and the manager closes the fund, stopping sales to new investors. For example, Pilgrim Securities closed its SmallCap Opportunities Fund in early 2000, saying that this was needed to ensure that the advisor could "continue to invest in companies and at valuation levels consistent with the fund's investment style."[2] In other words, Pilgrim believed that the inventory of small-cap stocks was so limited that a continued inflow of cash to the fund might force the investment advisor to purchase illiquid or otherwise undesirable securities. While a few funds are closed like this each year, the vast majority of open-end funds engage in constant distribution of their shares.

The Evolution of Mutual Fund Distribution

Until the 1970s, mutual funds held mostly equity securities and served primarily to offer the small investor a way to participate in the stock market. They were sold much the same way stocks were sold—by brokers who received a commission for executing the transaction. Most often, the shareholder paid a front end load—a commission on the purchase transaction—similar to the commission paid on a stock purchase. These commissions amounted to as much as 8.5 percent of the purchase amount on a small transaction, with the commission rate decreasing as the size of the purchase increased. A small percentage of fund families, the no-load funds, sold their shares directly to the investors without any intermediary or sales commission. But in 1970, these funds accounted for less than six percent of the industry's total assets under management.

The first major change in this pattern occurred in the 1970s, when no-load funds began to grow in popularity. Figure 8.1 shows the portion of total assets under management held by the no-load segment of the industry between 1984 and 2003. As Figure 8.1 shows, much of the growth in popularity of no-load funds closely correlated with the growth of the money market fund segment. In

the late 1970s and early 1980s, money market funds exploded from nowhere to become almost 80 percent of the industry, driven largely by the artificial cap that Regulation Q placed on banks' ability to pay interest to depositors. Money market funds are, for all practical purposes, no-load funds. They compete against other short-term savings vehicles that carry no commissions, and investors move their money into and out of them quickly. The prospect of paying a substantial commission on a short-term investment would make load money market funds extremely difficult to market. They remain rare even to this day—money market funds that impose any type of load hold less than two percent of all money market fund assets.[3]

As investors moved their money to equity and long-term fixed income funds in the mid-1980s, the proportion of the industry represented by money market funds declined. In 2000, a shift began to occur. As the popularity of shareholder investments in employer-sponsored pension plans and mutual fund supermarkets increased, the percentage of assets invested in no-load funds increased as well. Figure 8.1 shows that, for equity funds, no-load funds account for slightly over one-half of total industry assets. Figure 8.2 shows the breakdown for bond funds for the past 20 years. As Figure 8.2 shows, the relative industry share of no-load bond funds now exceeds that of load funds.

Figure 8.1 Load and no-load fund assets as a share of fund assets 1984–2003—equity funds.

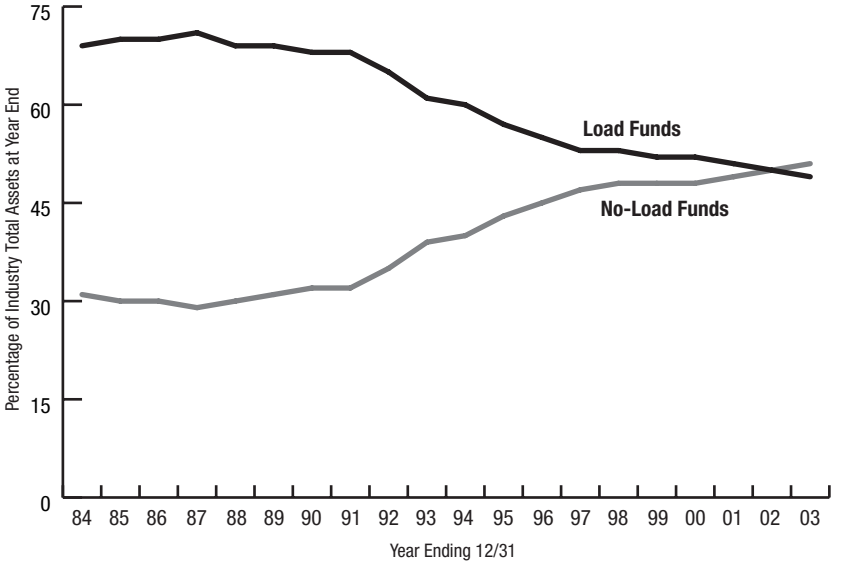

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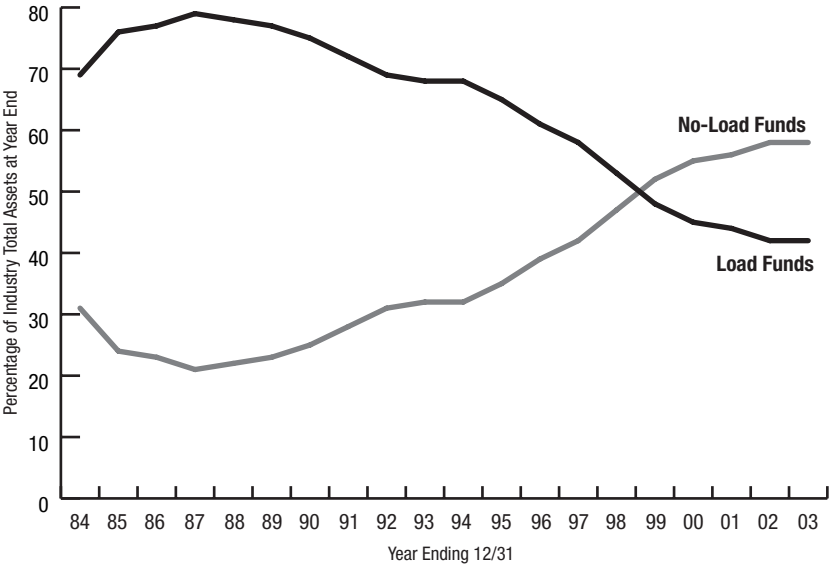
Figure 8.2 Load and no-load fund assets as a share of fund assets 1984–2003—bond funds.



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During the 1980s, however, the nature of distribution changed dramatically. Before 1980, "load" was virtually synonymous with "broker sold," and "no-load" meant directly marketed. Shareholders directly shouldered the distribution costs for load funds in the form of commissions; no-load fund sponsors paid for distribution out of their management and advisory fees. All this began to change with the adoption of Rule 12b-1 in 1980.

Representatives of the mutual fund industry had argued to the SEC during the 1970s that increased size in a fund was a benefit to existing shareholders because it brought economies of scale to fund operations. This justified using fund assets (i.e., the assets of those existing shareholders) to pay for distribution, since the fund gained from the resulting purchases. In 1980, the SEC responded to this argument, adopting Rule 12b-1, which permitted and set out the rules for an investment company to engage

> *directly or indirectly in financing any activity which is primarily intended to result in the sale of shares issued by such company, including, but not necessarily limited to, advertising, compensation of underwriters, dealers, and sales personnel, the printing and mailing of prospectuses to other than current shareholders, and the printing and mailing of sales literature.*[4]

Rule 12b-1 required that any such plan to use fund assets to finance distribution be written, that it be approved and renewed annually by the directors or trustees (or, if it is added to an existing fund, by the shareholders), and that it be terminable at any time upon a vote of either the directors or shareholders.

John Bogle had won a specific ruling allowing Vanguard to use fund assets to finance advertising and other marketing activities shortly before the SEC issued Rule 12b-1 to allow all fund groups to do the same.[5] Many observers at the time believed that the SEC's intent in adopting Rule 12b-1 was to give no-load fund groups like Vanguard more flexibility in arranging for distribution.[6] Instead, the major effects of the rule were to blur the lines between load and no-load funds, and to enable load fund sponsors to devise a variety of commission arrangements to fit both investor preferences and new distribution channel requirements.

During the 1980s, many funds, both load and no-load, added 12b-1 fees amounting to an annual charge of .25 percent of fund assets (25 basis points) to pay for advertising and other marketing expenses. Most load funds also added 12b-1 fees, often as high as 125 basis points annually, to compensate brokers in new ways. By passing on some or all of this fee in the form of a trail commission, paid out periodically to the brokers who controlled a shareholder account, a distributor could encourage the broker to keep the assets in the fund. Management companies also used 12b-1 fees to create contingent deferred sales charge (CDSC) funds, as an alternative to funds with front-end loads. In a CDSC arrangement, the broker earns a commission on the purchase transaction, but it is paid by the fund's distributor, not the shareholder. The distributor then recovers the money paid out to the broker over some number of years from the 12b-1 fee. If the shareholder redeems the shares before the commission is recovered, a back end commission is deducted from the liquidation proceeds to reimburse the distributor.

By the late 1980s, the SEC had received many angry letters from investors and industry critics who complained that fund companies did not adequately disclose these 12b-1 fees they assessed, making it difficult to determine the real expense load the shareholder bore.[7] The press reflected this sentiment in articles claiming that mutual funds "disguise expense burdens"[8] and "cheat the investor"[9] through their creation of a "fee jungle."[10] Some fund companies labeled their funds "no-load" even though they deducted substantial 12b-1 fees from the shareholders' accounts to compensate brokers. Some funds featured both front end loads and perpetual, large 12b-1 commissions. Between 1988 and 1993, regulators took several steps to address these issues.

In 1988, the SEC strengthened the disclosure rules, forcing funds to explicitly describe all fees and loads, including 12b-1 charges, in tables at the front of the prospectus. In 1993, the SEC prohibited any fund from terming

itself "no-load" if it assessed a 12b-1 fee of greater than 25 basis points. (Fund groups that had no 12b-1 fees at all, such as Vanguard and Scudder, took to calling themselves "pure" no-load funds, to distinguish themselves from the 25 basis point 12b-1 no-load funds.) Also in 1993, the NASD adopted rules that placed limits on what funds could charge in commissions.

Another significant regulatory change came in 1995, when the SEC adopted Rule 18f-3, allowing companies to offer multiple classes of shares in the same fund. The industry had found that different load structures in the same fund could be used to accommodate different target markets. For example, brokers could sell shares with a front-end load, financial planners might be induced to sell the same fund if all it had was an ongoing 12b-1 fee, and institutions such as pension plans might also buy it, but the 12b-1 fee had to be lower. One shareholder might prefer to pay a commission at the time of purchase, while another might prefer an ongoing 12b-1 fee to a front-end load. Fund companies responded by providing different options within a fund, but to do so they had to get around some regulatory obstacles.

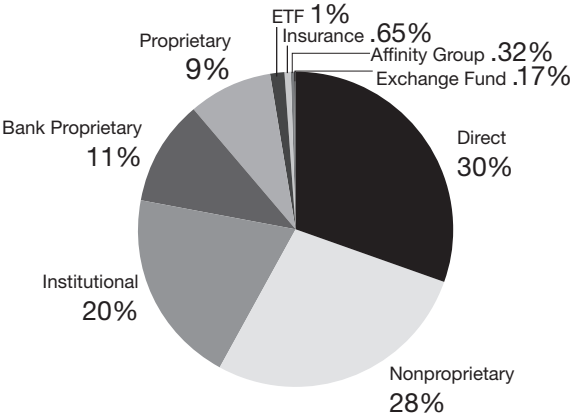
Section 22(d) of the 1940 Act requires an open-end fund to sell its shares at a single, defined price—the current offering price described in the prospectus, which is the NAV adjusted for any commission. Rule 22d-1, however, does allow a fund to have multiple commission schemes and therefore multiple offering prices, as long as each applies to a defined category of investor. One way to define categories is to divide the fund into multiple classes of shares, each with a different commission scheme. During the 1980s and early 1990s, many funds obtained exemptive orders from the SEC that allowed them to do this. Since 1995, when Rule 18f-3 allowed all funds to establish multiple classes of shares, most load funds and many no-load funds have become multiclass. (This accounts for some of the differences one sees in tallies of the total number of funds available today—if one counted each class as a separate fund, then there were over 19,000 funds in 2004; if one counted all the classes in a fund as a single fund, then the total was approximately 8,100.)[11]

Some funds use another method—a master/feeder or hub-and-spoke arrangement—to achieve economy of scale in investment management. In this arrangement, the master or hub, which is usually a partnership rather than a registered fund, actually owns a portfolio of securities in accordance with the investment objective. The registered mutual funds sold to investors, the feeders or spokes, all own only an interest in a master fund or in a number of master funds. Each feeder fund can have its own load structure and can be distributed in a different channel from other feeders or spokes. (In fact, the spokes don't have to be registered mutual funds at all—they could be bank trust funds or offshore funds, for example.) As of November 2004, there were approximately 680 U.S. registered funds (or fund classes) that were actually feeders or spokes.

The many different share classes or feeder funds today address the various channels through which funds are distributed. Figure 8.3 shows the breakdown of the industry's assets by major distribution channel as of late 2004. The nine channels shown are those defined by Strategic Insight, a consulting firm that gathers and publishes industry data (the ICI uses a slightly different breakdown of distribution channels). Strategic Insight provides the following brief definitions of each channel:

- *Nonproprietary* funds are sold primarily or exclusively through brokers not affiliated with the fund's manager.
- *Proprietary* funds are sold primarily or exclusively through the captive sales force of the fund's management company.
- *Direct* indicates that the fund is directly marketed to the public without an intermediary broker.
- *Bank* funds are advised and/or sold primarily by a specific bank.
- *Institutional* indicates that the fund is sold primarily or exclusively to institutional investors or high–net worth individuals.
- *Insurance* funds are sold primarily through the captive sales force of management companies whose primary business is insurance.
- *Affinity* indicates that the fund is marketed exclusively to a defined group of investors, who often (but not always) have an affiliation with the fund's management company.
- *Exchange-traded funds* (include two subcategories, unit investment trusts and open-end index funds) are funds that do not reinvest dividends in the fund but pay them out via a quarterly cash distribution.

Figure 8.3 Distribution of fund assets by distribution channel.



Source: Strategic Insight Simfund

Alphabet (and Number and Word) Soup: Fund Share Class Identifiers

Even before Rule 18f-3 was adopted in 1995, fund groups had created many multiclass funds by requesting exemptions, but when the SEC permitted the practice to everyone, classes exploded. Unfortunately, no one was able to establish a standard system of labels for these share classes. Some confusion has inevitably resulted—John Bogle, for example, termed the multiple classes with their varying load schemes "a perplexing miasma."[12]

To the extent that any commonality in share class designators exists, it is limited to classes A, B, and C, which most fund groups use in a similar fashion.

- Most funds use class A to designate shares that carry a front-end load. Almost 90 percent of the funds labeled class A at the end of 2004 were front-end load funds, and most of those carried a maximum load above four percent.* But not every fund used A to mean front-end load—approximately 335 no-load funds also designated their shares as class A.
- Class B typically signals a contingent deferred sales charge (CDSC)—95 percent of the time, as of late 2004. Again, the major exceptions were approximately 115 no-load funds that called their shares class B.
- Class C most often indicates a level load fund—97 percent of funds labeled C were also labeled level load, with approximately 65 no-load funds also using this label. Level load generally means a perpetual 12b-1 fee, with perhaps a small front-end load of one percent.

After that, the patterns break down completely. The Simfund MF database contains over 200 values for share class designators, ranging from letters (D, E, F, G, H, I, ...Y, Z), to numbers (1, 2, 3) to words (e.g., "Institutional," "Traditional"). Different funds use these designators to mean completely different things. For example, within the over 200 funds that call themselves class D, one can find the full spectrum of sales commission arrangements. Here are just a few:

- the Gartmore Growth Fund class D features a front-end load that tops out at 4.5 percent;
- the Sentinel Balanced Fund D class carries a CDSC that starts at six percent and an annual 12b-1 fee of 75 basis points to pay off the distributor-fronted commission;
- the Columbia Common Stock Fund class D is a level load fund, with no front-end load or CDSC, but a 100-basis point annual 12b-1 fee;
- the PIMCO Capital Appreciation Fund uses class D for no-load shares that carry a 25 basis point 12b-1 fee; and
- the Morgan Stanley Dean Witter Capital Opportunities Fund class D shares are pure no-load.

The *only* reliable way to determine exactly what the fund means by its class label is to read the prospectus.

**All figures are derived from data in the Strategic Insight Simfund MF database as of the end of 2004.*

- *Exchange funds* are funds that were established during the period when IRS tax codes permitted qualifying individuals to diversify their portfolios without suffering taxation of capital gains.

The first of these channels—proprietary and nonproprietary brokers—are discussed later in this chapter. The next chapter takes up the remaining channels. Finally, Chapter 10 covers two major topics that cross distribution channels—advertising and retirement investing—and steps back to take an overall look at marketing in the fund industry.

Underwriters, Distributors, Wholesalers

Most funds (and all funds that charge shareholders sales commissions, or loads) contract with a "principal underwriter," defined by the 1940 Act as an entity that can sell the fund's shares to others either as a principal (that purchases and resells the shares) or as an agent (that arranges the sale of the shares). In practice, it makes little difference beyond legal niceties whether the underwriter is a principal or an agent—in either case the underwriter has the exclusive right to distribute the fund's shares. In the industry today, the term "distributor" is used more often than the legal term "principal underwriter" to describe the organization playing this role.

A fund's distributor must be registered as a broker dealer under the Securities Exchange Act of 1934. Most often the distributor is affiliated with the fund's manager as part of the fund complex—the Fidelity funds are distributed by Fidelity Distributors Corporation, Inc., the AIM funds are distributed by AIM Distributors, Inc., and so on. A number of independent distributors serve fund groups, usually smaller groups, that do not have in-house distribution. For example, SEI and Bisys both provide distribution services for hundreds of funds the sponsors of which have chosen not to use an affiliated distributor.

Each fund executes a distribution agreement to govern the relationship with its principal underwriter. The distribution agreement, in addition to formally appointing the principal underwriter, typically covers a set of eight substantive issues.

1. *Procedures and conditions for selling fund shares.* The distribution agreement identifies the responsibilities that the distributor assumes regarding the solicitation and execution of sales to intermediaries or investors. It specifies share pricing and sales charge arrangements, usually by reference to the fund's current prospectus or SAI, and describes the distributor's obligations to settle with the fund for all sale transactions.
2. *Procedures and conditions for purchasing fund shares.* The distributor has to agree that it will repurchase fund shares upon the request of the

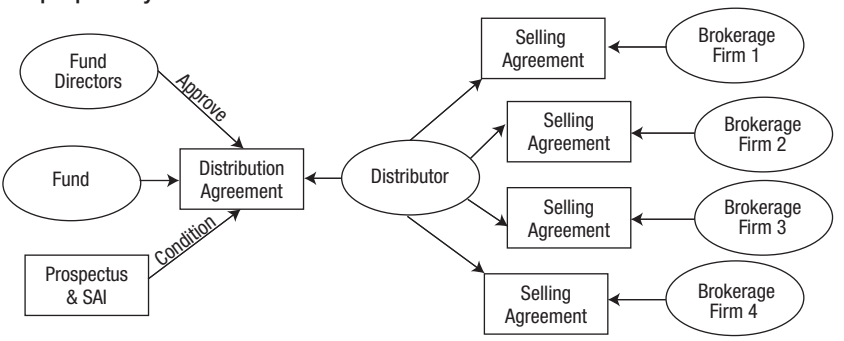
intermediary or investor, and agree to insulate the fund from the effects of any errors or omissions made by it or the counterparties with which it interacts. For example, if a dealer firm fails to settle a trade, that's the distributor's problem, not the fund's.

3. *Registration requirements.* The fund affirms that it is registered under the 1933 and 1940 Acts, and that it will use its best efforts to maintain its registration.
4. *State blue sky qualification.* The fund agrees to do whatever is needed to qualify shares for sale in the states, territories, possessions, etc., in which the distributor wishes to sell the fund, so long as this is not disadvantageous to the fund. (Chapter 11 covers blue sky regulations.)
5. *Other duties of the distributor.* The agreement may specify other requirements, such as the distributor's obligation to maintain certain records, comply with all prospectus requirements, and avoid making any representations inconsistent with the prospectus, such as misrepresenting the risk of a fund.
6. *Allocation of costs.* The agreement spells out what costs the fund bears, e.g., that of producing copies of the prospectus and SAI, versus what costs the distributor bears, typically all those costs related to selling activities.
7. *Duration.* The agreement has a stated termination date, along with the conditions under which the agreement can be extended, e.g., approval of the directors or shareholders, and approval of the nonaffiliated directors.
8. *Termination.* The agreement may be terminated by either side, and the agreement specifies the notice each side must give to terminate the agreement.

The distributor may distribute fund shares through its own representatives, or through other agents, such as brokers or financial planners. These different means by which fund distributors get shares into the hands of investors define the industry's distribution channels. In the nonproprietary broker channel, the fund's principal underwriter or distributor acts primarily as a wholesaler—selling to the separate brokerage firms that sell to the investors. The wholesaler establishes selling agreements with each brokerage firm that will sell the fund's shares, as depicted in Figure 8.4. This distribution or selling agreement details the requirements and responsibilities of each party.

The selling agreement identifies the dealer's responsibilities in selling the fund's shares to investors. For example, the dealer is held responsible for determining that investing in the fund is suitable for the investor. The agreement typically requires payment for share purchases in accordance with Rule 15c6-1 of the 1934 Act, which governs the settlement cycle for securities. It may

Figure 8.4 Relationships among funds, distributors, and brokers in the nonproprietary channel.



describe what responsibilities the dealer has for providing information about the shareholder under various circumstances, such as defining when the dealer has tax reporting responsibility for the investor's account in the fund.

1. *Suitability and multiple classes of shares.* For funds that have multiple share classes, the dealer firm agrees to be held responsible for determining which class of share is best for the investor's requirements.
2. *Procedures and responsibilities for sales, redemptions, and exchanges.* The agreement spells out the dealer's responsibilities for executing transactions in the fund's shares. This section contains such items as the circumstances under which dealers will be allowed to submit late trades.
3. *Compensation.* This section qualifies and extends the language in the fund's prospectus describing how the dealer firm will be compensated for selling the fund. For example, it may spell out when trail commissions are paid, and the minimum amounts for which the fund will actually make a payment.
4. *Warranties and indemnifications.* The distributor makes certain warranties to the dealer, including, for example, that the fund will comply with the prospectus language, and that the prospectus and sales literature the fund and distributor issue will not be misleading. The dealer must indemnify and hold harmless the fund and its agents from any damage arising from errors the dealer makes. For example, if the dealer tells the fund to redeem shares that it later turns out the investor really didn't own, the indemnification makes this the dealer's problem to remedy.

5. *Applicable laws and regulations.* The dealer is required to confirm that it qualifies to sell securities under the applicable laws of all applicable jurisdictions, as a member in good standing of NASD, or as a bank or bank holding company as defined under the banking laws.
6. *Termination.* The agreement terminates immediately if the dealer ceases to be qualified to sell securities, or either side may terminate the agreement upon specified notice.

A distributor usually employs individuals labeled internal and external wholesalers. External wholesalers call on brokers, financial planners, insurance agents, or anyone else who actually sells securities to investors, pitching the funds they represent to these intermediaries. An external wholesaler typically covers a geographic region, and travels throughout the region calling on clients. Pui-Wing Tam's 1999 *Wall Street Journal* article, reprinted at the end of this chapter, vividly describes the hectic life of a typical fund wholesaler.

As the article points out, a successful external wholesaler receives most of his or her compensation in the form of commissions on the sales of funds within the territory. An average wholesaler for a mid-sized fund group in the late 1990s made around $200,000 annually, but the compensation for top producers went much higher.[13] In a roundtable discussion of distribution, the managing director of sales for the New England Funds said that the wholesalers "are by far the most expensive part of what we do in the distribution model. I mean, these are very highly compensated, competitive individuals."[14]

Internal wholesalers work directly for the distributor, and play various roles. In the most common arrangement, internal or junior wholesalers support the external staff. They perform such functions as scheduling appointments for the external wholesalers, sending information to brokers, organizing seminars, and helping keep the field force up to date on fund developments—the "lick, stick, and staple business," as it has been termed.[15] At other firms, the internal wholesalers do more direct marketing to brokers themselves, particularly via telemarketing.

Load Fund Distribution Via Brokers

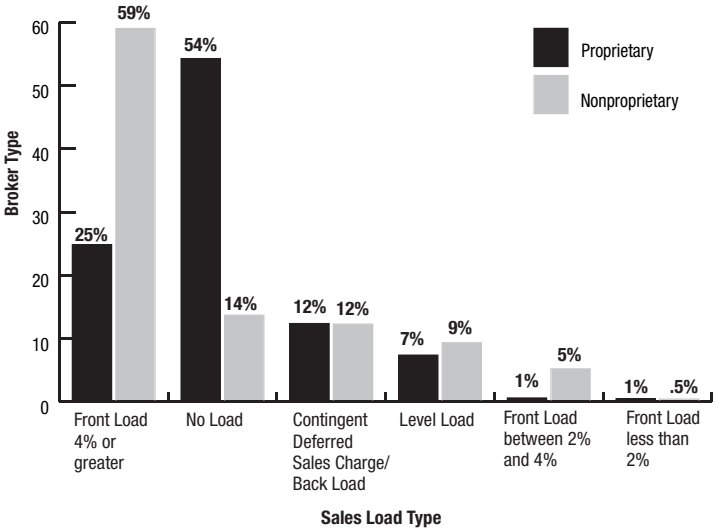
As of late 2004, funds distributed primarily by brokers held approximately 36 percent of the industry's total assets. The broker-distributed channel splits into two parts—proprietary and non-proprietary. When an organization (or complex of legally related organizations) both manages the funds and employs the brokers that sell them, this forms a proprietary channel. The American Express Funds, for example, are sold primarily by the financial planners that

work for American Express Financial Advisors. When the fund group uses brokers that belong to independent organizations, the funds are distributed through the nonproprietary channel. Putnam and AIM, for example, depend on the brokers working for such completely separate firms as Merrill Lynch and A. G. Edwards to sell their shares to investors.

Figure 8.5 breaks down the assets held in funds distributed by these two channels, showing the percentage of assets in each category of sales commission, or load. As might be expected, the nonproprietary brokers sell primarily load funds, either front- or back-end. Half of the no-load assets sold through this channel reside in money market funds. For funds distributed by proprietary brokers, 54 percent of the assets are held in no-load funds. This may seem surprising but again the answer lies in the nature of the funds. The vast majority—94 percent—of these assets are in money market funds, most of which are being used as a companion to a brokerage account, for handling short-term investment of cash. The majority of the long-term funds, both equity and fixed income, sold in this channel bear some type of load.

As of late 2004, the ten largest fund groups, measured by market share of assets under management within the nonproprietary broker-distributed channel were American Funds, Franklin, Oppenheimer, Putnam, Van Kampen,

Figure 8.5 Breakdown of assets under management in funds distributed primarily by brokers, 9/30/04.



Source: Strategic Insight Simfund

MFS, PIMCO, AllianceBernstein, Fidelity, and Nuveen. Collectively, these ten fund groups managed 64 percent of the $1.9 trillion in assets attributed to this channel. The concentration among funds distributed by proprietary brokers is more pronounced. The top ten managers—Merrill Lynch, Schwab, Morgan Stanley, Citigroup Asset Management, American Express, USB Global Asset Management, Evergreen, Prudential, Legg Mason, and Waddell & Reed—accounted in late 2004 for 93 percent of the $597 billion in assets among funds in this channel.

Whether they are selling their own funds (proprietary) or someone else's (nonproprietary), the role of the broker is the same—to induce the individual investor to purchase shares in the fund. Typically, the sales process involves the broker providing investment advice or other services, for which the broker is compensated in the form of a commission.

Load Schemes and Broker Compensation

Mutual fund distributors have devised dozens of specific commissions schemes, but they all fall into one of three major categories: front-end loads, back-end (CDSC) loads, or level loads. Many funds employ all three approaches in their different share classes. The Colonial U. S. Government Fund series, a group of typical load funds sold through the nonproprietary broker channel, illustrates these approaches and how they work.

As an excerpt from the funds' prospectus shows (see Table 8.1), funds in the Colonial Intermediate U.S. Government Fund offer three classes of shares: A (front-end load), B (CDSC), and C (level load). The prospectus also spells out exactly how the commission scheme works for each class.

Table 8.1 Shareholders Fees* (paid directly from your investment)

	Class A	Class B	Class C
Maximum sales charge (load) on purchases (%) (as percentage of the offering pricer)	4.75	0.00	0.00
Maximum deferred sales charge (load) on redemptions (%) (as a percentage of the lesser of purchase price or redemption price)	1.00 †	5.00	1.00
Redemption fee (%) (as a percentage of amount redeemed, if applicable)	‡	‡	‡

* A $10 annual fee is deducted from accounts of less than $1,000 and paid to the transfer agent.

† This change applies only to certain Class A shares bought without an initial sales charge that are sold within 18 months of purchase

‡ There is a $7.50 charge for wiring sale proceeds to your bank.

Source: Colonial U.S. Government Funds Services

Front-End Load

Front-end loads are commissions paid directly by the investor when the purchase transaction is made. The commission amount is typically expressed as a percentage of the fund's *offering price*, which is the NAV adjusted for the commission. The load table associated with the fund determines this adjustment amount. As the load table for the Colonial Intermediate U.S. Government and Federal Securities funds illustrates, a front-end load fund often provides for reductions in the commission rate for larger purchases.

To illustrate how a share purchase in a front-end load fund works, consider the example of a $10,000 investment in the Colonial Federal Securities Fund, which, at the time, has an NAV per share of $10.00.

- The offering price is calculated as the NAV divided by one minus the commission rate ($10.00/(1–.0475)), or $10.50. Prices are always rounded to the nearest penny.
- The investor gets 952.381 shares ($10,000 divided by the offering price of $10.50 per share). Open-end fund share amounts are rounded to the nearest thousandth of a share.
- The fund gets $9,523.81 (952.381 shares times the NAV per share of $10.00).
- The brokerage firm gets $425 ($10,000 times the dealer concession rate of 4.25 percent).
- Finally, the distributor gets the remainder, $51.19 in this case. The load table shows a difference between what the investor pays (4.75 percent) and what the dealer firm gets (4.25 percent), and this accrues to the fund's distributor. The distributor also "eats the breakage"—that is, absorbs the effect of any rounding errors that occur in the calculations. In this case, there was a $1.19 breakage (.5 percent of $10,000 is $50, not $51.19). This breakage results from rounding the offering price (from $10.49868766404 to $10.50) and the number of shares purchased (from 952.380952381 to 952.381).

As Table 8.2 shows, the investor could reduce the commission paid by increasing the size of the purchase. Front-end load funds typically also give these volume discounts if:

1. the investor executes a letter of intent (LOI) to invest a larger amount within a specified period, often 13 months; or
2. the purchase plus the total amount already invested in the investor's account, or a group of accounts related to the investor, reaches the levels that qualify for a reduced load. This practice of considering the current

Table 8.2 Colonial Intermediate U.S. Government Fund and Colonial Federal Securities Fund

Amount of purchase	As a % of the public offering price	As a % of your investment	% of offering price retained by financial advisor firm
Less than $50,000	4.75	4.99	4.25
$50,000 to less than $100,000	4.50	4.71	4.00
$100,000 to less than $250,000	3.50	3.63	3.00
$250,000 to less than $500,000	2.50	2.56	2.00
$500,000 to less than $1,000,000	2.00	2.04	1.75
$1,000,000 or more*	0.00	0.00	0.00

* Class A shares bought without an initial sales charge in accounts aggregating $1 million to $5 million at the time of purchase are subject to a 1% CDSC if the shares are sold within 18 months of the time of purchase. Subsequent Class A share purchases that bring your account value about $1 million are subject to a 1% CDSC if redeemed within 18 months of their purchase date. The 18-month period begins on the first day of the month following each purchase.
Source: Colonial U.S. Government Funds Services

amount invested in existing accounts to determine load level on a purchase is termed rights of accumulation (ROA).

The fund's prospectus must describe how an investor can reduce the amount of commission he or she might pay through an LOI or ROA.

Contingent Deferred Sales Charge

CDSC funds were introduced in the 1980s once Rule 12b-1 gave fund groups a convenient method of recovering money distributors advanced to cover broker commissions. They appeal to brokers because they provide an immediate commission at time of purchase, similar to front-end load funds. They appeal to investors, because all the investor's money is used to purchase shares in the fund at the current NAV per share. To make this possible, the fund's distributor pays the commission to the broker, and then recovers the money from the shareholder over a period of years, by taking an annual deduction from the shareholder's account.

This creates a contingent liability for the shareholder, which is deferred, and eventually paid off from 12b-1 fees, if the shareholder keeps the money in the fund. If he or she redeems the shares before this money has been recovered, however, the distributor must deduct the remaining amount owed from the redemption proceeds. This liability declines over time, as the periodic deductions add up. Table 8.3 excerpted from the Colonial prospectus shows a typical pattern of the decline in liability as the shares age. A shareholder who

redeems in the first year after purchasing the class B shares will pay a five percent CDSC fee. This rate declines year by year, until after six years when there is no longer any liability. After eight years, the class B shares convert to class A shares, which carry a lower 12b-1 rate.

The distributor of a successful CDSC fund faces the need to arrange financing of these advanced commissions. For example, during 1998, the Eaton Vance Tax Managed Growth Fund Class B, with a distributor-fronted commission rate of four percent, had net purchases of almost $2 billion. This meant that Eaton Vance Distributors, Inc. had to pay out something on the order of $75 million in 1998 to dealers who sold these shares, money that it would recover only over a period of years. Essentially, the distributor makes a loan to the brokerage firm and gets repaid by the shareholders. If the distributor cannot finance this payment from its own or its parent's cash flow, then it must borrow the funds. Some borrow the money from banks or other institutional lenders. In recent years, some distributors have begun securitizing these flows. They package up the rights to expected 12b-1 flows from a fund or group of funds into a sort of bond (much like a mortgage-backed security), and sell these to investors.[16]

Level Loads

Level load share classes carry a perpetual 12b-1 fee, usually 100 basis points per year, no front-end load paid by the investor, and at most a one percent distributor-fronted payment. Colonial's level load arrangement for its class C shares is typical, with a CDSC for only one year, so that the distributor can recover the 100 basis points paid to the selling brokerage firm in case the shareholder redeems early.

Table 8.3 Colonial Intermediate U.S. Government Fund and Colonial Federal Securities Fund

Holding period after purchase	% deducted when shares are sold
Through first year	5.00
Through second year	4.00
Through third year	3.00
Through fourth year	3.00
Through fifth year	2.00
Through sixth year	1.00
Longer than six years	0.00

Commission to financial advisors is 4.00%.
Automatic conversion to Class A shares is eight years after purchase.
Source: Colonial U.S. Government Funds Services

Level loads have generated more controversy than any other share class, since they have misled some investors into believing that they are no-load funds. In 1994, *Newsday* termed them a "marketing illusion," in an article in which the SEC's chief mutual fund regulator expressed concern over how they were perceived.[17] Nor have they been a tremendous hit among investors and brokers. Although the number of fund classes with level loads grew from under 100 in 1992 to approximately 2,800 at the end of 2004, the total assets attributable to this type of fund was only $247 billion, or about three percent of the industry total assets. From January of 2000 through November 2004, however, level load shares have captured approximately 48 percent of new load fund flows, indicating an upturn in investor and broker interest.

> ***Class C Shares***
> *Similar to Class B shares, your purchases of Class C shares are at the fund's NAV. Although Class C shares have no front-end sales charge, they carry a CDSC of 1.00% that is applied to shares sold within the first year after they are purchased. After holding shares for one year, you may sell them at any time without paying a CDSC. The distributor pays the financial advisor firm an up-front commission of 1.00% on sales of Class C shares.*

Fund companies that offer level load classes cite one or more of several reasons for doing so. They believe that some brokers prefer the continuing annual revenue stream from the 100–basis point 12b-1 charge (but admit that this appeals more to established brokers, who have a reliable income stream, than it does to new brokers, to whom the immediate gratification of a transaction commission is more attractive.) They believe that investors like the level load scheme because the brokers get paid more if the value of the fund goes up but less if it goes down. Or they believe that level load funds appeal to commission-based financial advisors by giving them a product that essentially mimics the fee-based structure (i.e., an annual asset-based charge). As stated by one mutual fund marketer, "it puts brokers and clients on the same side of the table."[18]

The load structures in a fund's prospectus describe what the distributor actually pays the firm with which it has a selling agreement. Those firms subsequently divide up the commission they receive from the fund among the individual representative who has the investor account, his or her management hierarchy, and the firm itself. A registered representative who executes an investor's $10,000 purchase into a fund with a five percent front-end load will certainly receive something less than the full $500 of commission the purchase generates.

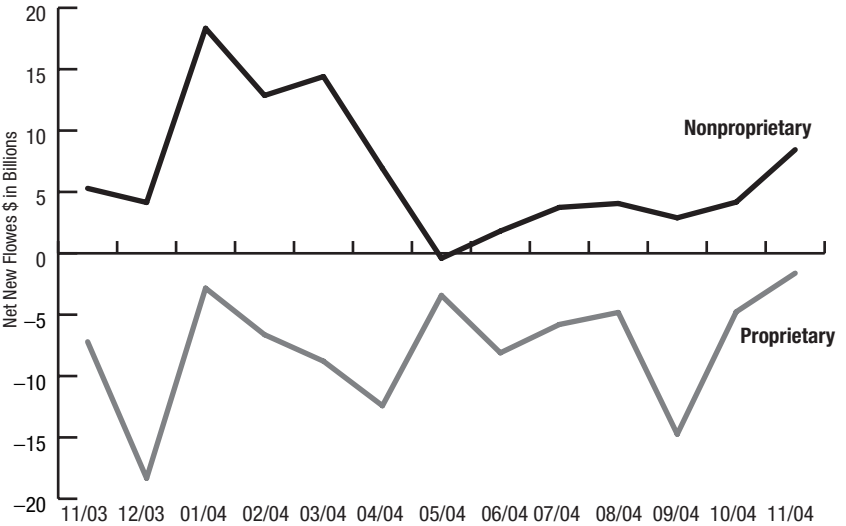
The major difference between the proprietary and nonproprietary channels is the universe of intermediaries through which they sell. In the proprietary channel, the brokers or planners do more or less the same things as do the brokers in the nonproprietary channels, but they do them for the same company as manages the funds. This has both advantages and disadvantages for the funds.

For funds selling through the nonproprietary channel, the great challenge is that of "getting shelf space" within the brokerage community. An A. G. Edwards broker, for example, has literally thousands of funds to sell from dozens, if not hundreds, of fund families—why should he or she expend efforts on any one of these over any other? Fund distributors look for ways to provide valuable services to brokers—software, data about investors, seminars—to get their attention and motivate them to recommend the funds of their particular group. They schmooze them. In this channel, the personal relationships that wholesalers build with dealers play a large role in getting funds sold.

The funds that use proprietary distribution don't have the shelf space problem with their own captive sales force, but their universe of intermediaries is limited to that relatively small group. For this reason, net sales through the proprietary channel has always badly trailed sales through the nonproprietary channel. For example, as Figure 8.6 shows, for the 12 months ended November 2004, the proprietary channel experienced net outflows while the nonproprietary channel experienced net inflows. During the late 1990s, many of the players in this channel have concluded that they must expand beyond their captive sales force and distribute via independent brokers and planners if they are to grow at a satisfactory rate. By the late 1990s, such large firms as Merrill Lynch, Prudential, and American Express had all begun distributing their proprietary funds through third parties.

This practice continues to erode the distinction between the proprietary and nonproprietary channels. At one time, the sales forces of institutions with proprietary funds sold only their own firms' funds. As the 1990s progressed, most of these organizations found this to be an untenable position—investors demanded a wider choice—so they had to let their salespeople sell competing products. This erosion is reflected in the response one Prudential broker made to the announcement that Prudential would use third-party distribution for its funds: "The average broker here doesn't sell much in-house funds, so if someone else wants to sell them, more power to them."[19] And industry guru Lou Harvey thinks the proprietary channel will eventually disappear. "Every manufacturer in this business will sell through every distribution channel. If I'm a manufacturer and want to grow assets, why would I tie my hands behind my back? It's just nuts."[20]

Figure 8.6 Net sales of long-term funds in the proprietary and nonproprietary broker channels.



Source: Strategic Insight Simfund

Connecting Brokers and Funds: NSCC's Fund/SERV

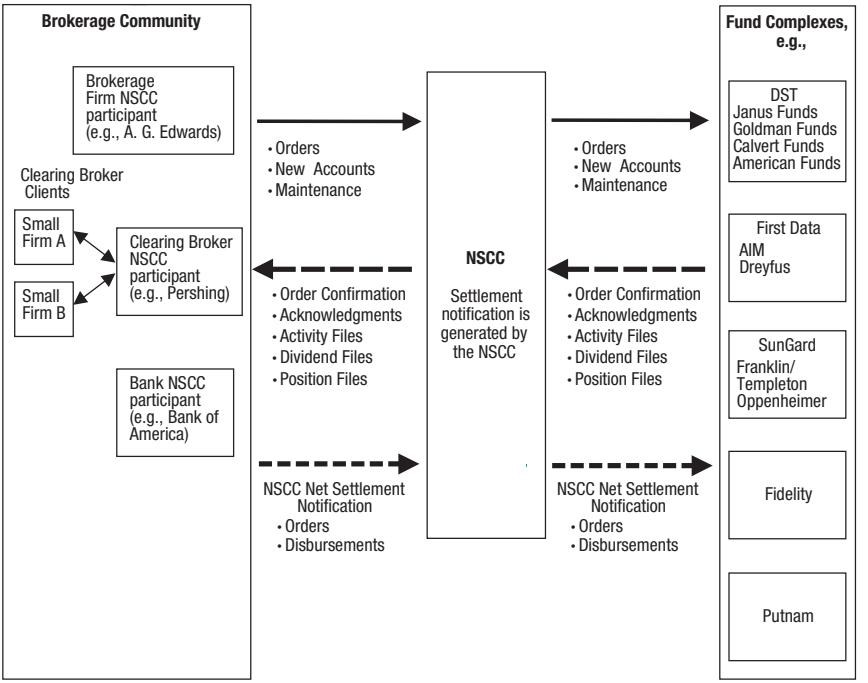
NSCC, whose role in clearing and settling a fund's portfolio trades was discussed in Chapter 6, also plays an important role in completing the trades of the shares of the fund itself, especially for those funds sold in the nonproprietary broker channel. NSCC introduced Fund/SERV in 1986 to connect brokerage firms with the fund complexes whose products they sold. Brokers could submit orders and registrations to the fund companies via Fund/SERV, and the funds could respond with confirmations in the same way. Over the past fourteen years, Fund/SERV and complementary NSCC mutual fund systems have added other functions, such as the following:

- Mutual fund networking allows brokers and funds to coordinate their respective responsibilities toward the shareholders. Brokers can send shareholder account information changes to the funds, receive status information about those accounts from the funds, and agree with the funds what functions will be done by which party (e.g., who produces the tax forms for the investor).
- Funds can pay their commissions due to brokers via NSCC.

- When an investor switches from one brokerage firm to another, NSCC can notify the funds to make the appropriate changes to their records.
- NSCC can broadcast fund information, such as NAVs and dividend rates and dates to the brokerage community.

Fund/SERV offers both funds and brokers two great benefits. First, it allows hundreds of brokerage firms to deal with hundreds of fund complexes via a single, standardized computer interface. Without Fund/SERV, the brokers and fund complexes would have to define and operate their own computer systems for communicating trades and other information back and forth (as some did in the 1980s). Of course, Fund/SERV isn't free. Funds and brokers pay a small monthly membership fee ($50 per month for basic Fund/SERV membership, for example), and a charge per transaction ($.25 per trade, for example). However, developing proprietary, one-off computer links would require enormously more time and money on the part of both funds and brokers than does connecting to Fund/SERV.

Figure 8.7 NSCC fund/SERV participants and functions.



Fund/SERV also provides for net settlement among funds and brokers. Each day, NSCC totals all the positive and negative cash flows accruing to each Fund/SERV participant and creates a single cash flow between itself and the participant. Thus Putnam doesn't have to settle individually with Merrill Lynch, A. G. Edwards, and 50 other brokerage firms, nor does Edward D. Jones have to settle individually with Pioneer, Colonial, and 20 other fund families. Each does just one net settlement with NSCC. These facilities—a standard interface and net settlement—have proven so generally useful that some no-load fund complexes have joined Fund/SERV to connect to bank trust departments and other intermediaries that sell their funds as part of asset management programs.

Issues in Broker Distribution

Over the years, two questions concerning broker distribution of mutual funds have continued to stir controversy—whether investors understand the ramifications of the increasingly complex commission schemes the funds have developed, and whether some distribution features cause conflicts of interest for brokers.

Investor confusion with commission schemes has drawn fire from the regulators and the press from the time Rule 12b-1 was adopted to the present. Every SEC chairman and Investment Management Division head has commented on this question. The press has examined it repeatedly in critical articles. Twice the SEC has taken steps to try to resolve it. In 1993, the SEC amended the disclosure rules and directed funds to prominently display in the prospectus detailed charts of the effects of fees and commissions on a hypothetical investment in each share class. For example, here are the charts Colonial has in the prospectus for its Federal Securities Fund.

This table (Table 8.4), like all such static tables, holds only for the assumptions made—the amount invested, the fund's rate of return, how long the shares are held, and so on. And of course the tables in a fund's prospectus show only that fund. To help investors compare fund expenses using the assumptions the investors want to use, the SEC in 1999 put a mutual fund cost calculator on its web site (*http://www.sec.gov*). The cost calculator prompts the user to enter all the relevant data—amount of investment, fee and commission rates, holding period, expected fund return. It calculates and displays total cost (both fees paid and earnings foregone due to those fees), as well as the value of the investment at the end of the holding period. By running this calculator for different funds and share classes using the assumptions he or she finds relevant, an investor can make valid comparisons among funds.

Table 8.4 Example Expenses

Example Expenses help you compare the cost of investing in the fund to the cost of investing in other mutual funds. The table does not take into account any expense reduction arrangement discussed in the footnotes to the Annual Fund Operating Expenses table. It uses the following hypothetical conditions:

- $10,000 initial investment
- 5% total return for each year
- Fund operating expenses remain the same
- Assumes reinvestment of all dividends and distributions

Example expenses (your actual costs may be higher or lower)

Class		1 Year	3 Years	5 Years	10 Years
Class A		$586	$822`	$1,076	$1,803
Class B	did not sell your shares	$193	$596	$1,025	$2,024
	sold all your shares at the end of the period	$693	$896	$1,225	$2,024
Class C	did not sell your shares	$193	$596	$1,025	$2,219
	sold all your shares at the end of the period	$293	$596	$1,025	$2,219

Source: Colonial U.S. Government Funds Services

As long as brokers have sold securities, investors have been concerned about conflicts of interest—temptations for brokers to make recommendations because they are in the broker's best interests, not the client's. Two potential conflicts of interest result from specific mutual fund characteristics. First, if funds distributed by proprietary brokers pay those brokers higher commission rates than do other fund families, this gives the broker an incentive to steer clients toward those proprietary funds. For example, an XYZ broker selling the XYZ U.S. Large-Cap fund might receive a three percent (out of the total five percent) front-end commission, whereas he or she only gets a two percent commission selling a Putnam or Pioneer equivalent. If the Putnam or Pioneer fund is really better for the client, and the broker still pushes the XYZ fund, then the broker has succumbed to a conflict of interest. In early 2000, this appeared to be a declining practice—Morgan Stanley remained the last wirehouse (large national broker dealer) that paid its representatives more to sell its proprietary funds.[21]

Second, different share classes are appropriate for different investors based on the time the investor expects to hold the fund. A front-end load with little or no ongoing 12b-1 is better for the investor who expects to hold the fund for a long time; no front-end load and a larger 12b-1 is better for the short-term investor. The total commission earned by the broker is higher if

he or she steers each investor in the other direction. For example, if a shareholder is likely to redeem in two or three years, the broker gets more if the shareholder buys class A shares with a front-end load than if he buys class C with only an annual 12b-1 fee.

These opportunities for conflict have been analyzed by academics,[22] decried in the press,[23] and examined by the SEC and NASD.[24] Both remain controversial issues. The SEC has repeatedly strengthened disclosure rules to help investors understand the implications of different load structures. In 1999, NASD proposed prohibiting brokerage firms from paying their registered representatives more for selling their proprietary funds than for selling outside funds. Both the ICI and the Securities Industry Association have fought the proposal, saying that the rule was ambiguous, and that it was not justified by any demonstrated record of abuses. At this writing, it remains uncertain whether any rule will be adopted.

Monthly Mutual Funds Review—Wholesale Changes: Have Fund, Will Travel

Small-Town Pitch Can Make for Some Big-Time Profit If It's Taken to the People

By Pui-Wing Tam, 12/06/1999, The *Wall Street Journal*

WENATCHEE, Wash.—The trip that salesman Tom Schinabeck has planned is complicated and circuitous.

Arriving by plane in the small town of Pasco, Wash., from Seattle, he will head first to Richland, a rural town in the eastern part of the state, to meet five long-time clients. Then he'll drive one hour to the Oregon town of Pendleton. And then it's two more hours in the car, through flatlands to Sunnyside, Wash., for sessions with a few more clients, and several more hours to yet two more little towns. By the end of the day, Mr. Schinabeck will have logged one hour of plane travel, six hours of driving and three fast-food meals (two at Burger King, one at Taco Time).

All this just to sell mutual funds. That's right, mutual funds.

Mr. Schinabeck's willingness to travel to small towns across the Pacific Northwest illuminates how the world has changed for wholesalers, the people who pitch mutual funds to the securities brokers who then pitch them to you. While the business has always been competitive, wholesalers in the past could count on a growing pot of investor money brought on by the long bull market to whet brokers' interest in the funds they peddle. And they could mostly confine themselves to the bigger cities, selling funds to the urban monied masses.

But now, the pace of money flowing into stock funds is off the record levels it hit in 1997. Even as investors continue to pump money into funds, it is disproportionately going into a narrow slice of funds with the very hottest performance, and a large number of funds are suffering net redemptions. Across the board, withdrawals are up more than 36% this year, according to Financial Research Corp., a mutual fund research firm in Boston, as investors spend some of the bounty and turn to more exciting investment pursuits, like online stock trading. Meanwhile, regulators have cracked down on the financial lures that asset managers may dangle before brokers, forcing the fund firms to be more creative about how they can push their funds to the forefront.

So the last thing Mr. Schinabeck needs right now is a late plane, which is what he faces on a recent damp Tuesday. Mr. Schinabeck, who sells funds exclusively for Federated Investors of Pittsburgh, wants to board a 6:30 a.m. flight at Seattle-Tacoma International Airport, but he finds out fog might delay the journey.

"Shoot," says the 31-year-old wholesaler, who has been selling Federated mutual funds to brokers since he got out of college a decade ago. A delay could really mess up his day.

When he started his route across Washington state, in late 1994, he plumbed the larger cities. Since then, however, he has added routes through villages in Alaska and the far-flung reaches of Oregon. This year, Mr. Schinabeck will visit 300 broker offices in small towns across the Pacific Northwest—most of them several times—up from 170 a few years ago. His pioneer lifestyle has earned him the company moniker of Daniel Boone.

The good news in all this is that the traveling appears to be paying off, at least for now. In 1994, Mr. Schinabeck started with $6 million in new sales in the greater Seattle area. Since then, he has focused on selling to brokers associated with Edward Jones, a St. Louis firm that has opened one-person broker offices in towns all across the country. The concentration is working: By 1998, Mr. Schinabeck's sales had jumped to $128 million in new cash. This year, he expects to pull in $160 million. For Mr. Schinabeck himself, this means a nice bump-up in pay. In addition to a regular salary, he gets four bonuses a year based on his quarterly sales figures.

As for Federated, the firm has had flat net flows year-to-date through September, according to Financial Research, even though many of its funds have posted strong returns for the year.

"There are so many mutual funds out there that I try to work with people who can support my business—and that includes Tom Schinabeck," says John Lunt, a retired U.S. Air Force colonel who is now an Edward Jones broker in Wenatchee, a town dubbed the Apple Capital of the World.

But Mr. Schinabeck's efforts are clearly bone-wearying. On the road at least three days a week, the wholesaler is an expert at flying in prop planes and gassing up his rental car before heading into a remote area. He often wears a bow tie to prevent fast-food sauces from staining a real tie, since he usually chows down while driving. On the road, Mr. Schinabeck has been stuck in blizzards. More than once, he has inadvertently crashed into deer and badgers that have darted onto the road while he was driving to small towns at night.

Mr. Schinabeck's wife is no fan of his lifestyle, either. The couple recently bought a new two-acre waterfront home on the outskirts of Seattle, and they're trying now to have children. "She'd like me to be around more often," Mr. Schinabeck says.

On top of all these physical hardships, the plain fact is that "mutual funds aren't that sexy to sell anymore," Mr. Schinabeck says, noting that individual stocks seem to interest a growing number of would-be fund customers.

But on this recent foggy Tuesday, luck seems to be going his way. The mist around Seattle airport clears. Soon, a whirring 40-person plane launches the wholesaler high above Seattle and east over the mountains. An hour later, Mr. Schinabeck lands in Pasco, an apple- and grape-growing community.

Quickly sliding into his rental car, Mr. Schinabeck zooms off to the Edward Jones office of Robert Shillingstad, a local broker kingpin with one of the largest clienteles and assets under management in the area. The two men greet each other like old friends, and Mr. Schinabeck says hello to the four other brokers who have driven in from neighboring towns for the meeting in the nondescript two-story office building off a main road. Pulling out a sheaf of papers, the wholesaler begins his pitch.

"All our Federated funds will distribute capital gains in the next two weeks," an event that will create a tax bill for many investors, Mr. Schinabeck says. But with capital gains out of the way, "we can keep on selling the funds," he adds. Investors are generally advised not to buy funds right before distributions are made because they can get saddled with a tax bill without the benefit of the gains.

Over the next hour, Mr. Schinabeck runs through some of his favorite Federated funds. In particular, he pushes Federated Aggressive Growth Fund, a $93 million portfolio that has produced spectacular returns so far this year based on a huge exposure to smaller technology stocks. "This fund is great for dollar-cost averaging," he says. To add spice to the pitch, he says, "This fund will show up in a lot of the newspapers soon." The fund is clearly one of Federated's best, up 78.6% year-to-date through Nov. 30.

Later, Mr. Schinabeck pulls out his trump card. "One of the things I'd like to do next year is to bring a few fund managers out here," he says, leaning forward over the big oak-brown conference table. "We'd rent a big seminar room at a local hotel, and all you'd have to do is bring your best clients. Maybe we could even get some local media."

Mr. Shillingstad nods in agreement. "That'd be great," the broker concurs.

With the meeting over, Mr. Schinabeck hops back into his car and heads to Pendleton, Ore., a town of about 40,000. Moving along at 65 miles an hour, Mr. Schinabeck gets to the rodeo town half an hour earlier than planned. He stops at a local Red Lion Inn to catch up on voice mail and make calls from the hotel pay phone. "The thing about this job," he says, "you spend a lot of time talking on pay phones."

Soon he is in the Edward Jones office of local broker Steven Bjerke, who also sits on Pendleton's city council. Mr. Schinabeck pulls out the same sheaf of papers and runs through a similar pitch. Before long, the two men have concluded the formal part of their conversation. Mr. Schinabeck asks Mr. Bjerke about his Christmas plans and invites him over to his house the next time the broker is in Seattle.

And so it goes for Mr. Schinabeck. By the end of the day, he will have also driven two hours past apple orchards and fields of hop to Sunnyside, Wash., where broker Brian Bliesner works. And to wrap up the day, he will see broker Gailon Gentry in Yakima, Wash., a larger town 45 minutes from Sunnyside. One office is located in a modest strip shopping center, the other, a squat plain office building. Inside each, Mr. Schinabeck's pitch is enthusiastic—and all but identical: Federated funds have paid out capital gains and are performing well. Think about buying Federated Aggressive Growth Fund. Call anytime, for anything.

Does all the selling and pitching get tiring? "Yes and no," says Mr. Schinabeck, as he slides back into the car for the final two-hour drive of the night, to Wenatchee, Wash., where he has four broker meetings set up for the next day. "You have to tweak the pitch every place you go. And after a while, you get to know the brokers, so you end up pitching less and just shooting the breeze more."

chapter 9 | The Direct, Bank, and Institutional Channels

During the 1990s, it became increasingly common to offer mutual funds though more than one distribution channel. The development of multichannel distribution has brought a larger number of funds into direct competition within the same distribution channel.

— Investment Company Institute, *Perspective* (July 2003)[1]

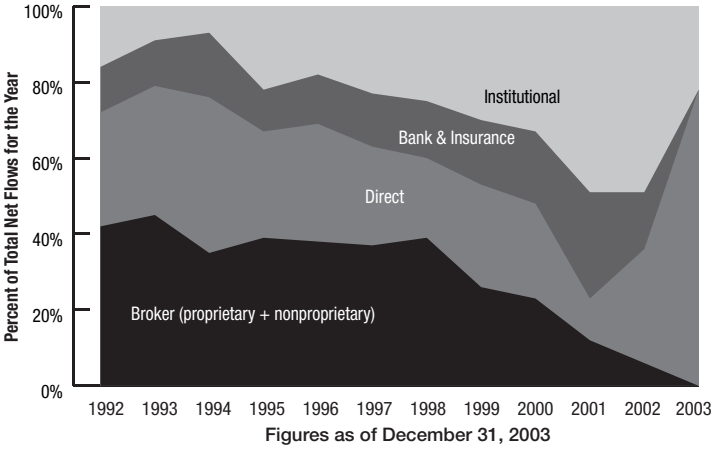
Until the market decline in 2003, the division of the net flow of new money into U.S. open-end funds was fairly stable across the major distribution channels. However, as Figure 9.1 illustrates, behavior within the channels themselves evolved and recently the bank and broker proprietary channels have experienced net outflows. The last chapter discussed this evolution for the broker channels. This chapter covers the other major channels, and how they comprise a complex pattern of overlapping paths that lead investors and their money to mutual fund managers.

The Direct Channel

At one time, sales in the direct channel functioned very simply—do-it-yourself investors took responsibility for analyzing and choosing no-load funds, and dealt solely with the fund companies to purchase shares in those funds. No intermediary provided advice or service, or earned a commission on the transactions. A trivial graphic could depict the relationship—it would show two boxes, one for investors and one for funds, connected by a single line, representing a point-to-point exchange of cash and information.

The "pure" direct channel continues to operate this way. But several factors have combined to build other paths from investors to no-load, directly marketed funds. Figure 9.2 illustrates this more complex flow. Some investors purchase shares through fund supermarkets to get services they cannot get

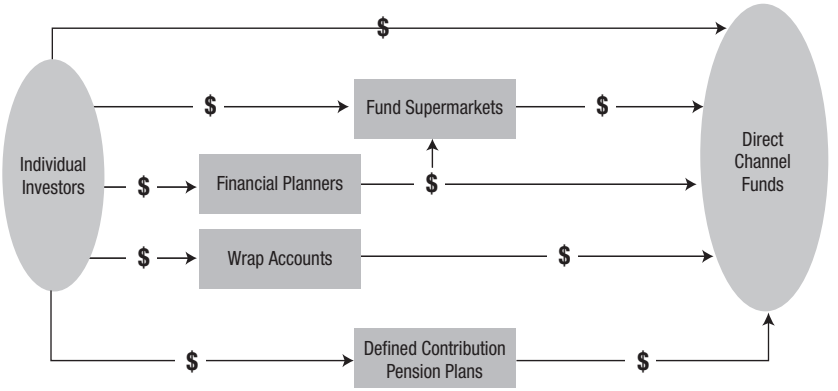
Figure 9.1 Proportions of industry net sales by major channel.



Source: Strategic Insight Simfund

conveniently from a single fund family, such as consolidated statements and interfund family exchanges. Some invest in these funds through fee-based financial advisors or wrap programs, paying for the advice they get on the basis of their total asset base rather than on the transactions or holdings with a particular fund. Finally, many acquire mutual funds via the defined contribution plans their employers offer them as pension vehicles. (The defined contribution path crosses distribution channels, funneling money into funds of all sorts.)

Figure 9.2 Major sales paths through the direct channel.

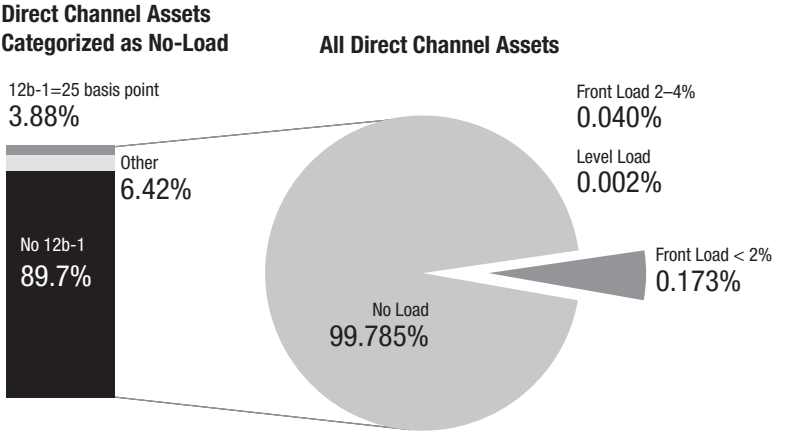


Different observers of the industry define the direct channel differently, depending on which of these paths they include and exclude. Thus one article discussing mutual fund distribution can claim that "direct marketing dominates mutual fund distribution channels"[2] without contradicting another commentator writing at the same time to assert that direct purchases of funds have given way to those made through intermediaries.[3] The first defines the direct channel to include sales through financial planners and supermarkets, while the other does not.

Here we will define the direct channel broadly to include all the paths shown in Figure 9.2. As of September 2004, the approximately 1,890 funds distributed through this broadly defined direct channel held assets valued at $2 trillion, approximately 30 percent of the industry's total. Figure 9.3 shows that this channel contained virtually all no-load funds. Funds with front-end loads accounted for less than one percent of the total. The majority—approximately 90 percent—of the no-load funds were "pure" no-load, with no 12b-1 charges at all.

From 1985 to 2004, the portion of total industry assets held by funds distributed in the direct channel climbed slowly and fairly steadily, from around 25 percent in 1985 to about 30 percent as of November 2004.[4] Not all fund families in the direct channel have shared evenly in this wealth, however. As of November 2004, the ten largest fund complexes in the chan-

Figure 9.3 Breakdown of assets in direct channel funds, by sales load, as of 9/30/04.



Source: Strategic Insight Simfund

nel—Vanguard, Fidelity, T. Rowe Price, Dodge & Cox, American Century, Janus, Dreyfus, Scudder, USAA, and Schwab—accounted for approximately 83 percent of its assets. For the ten years ended 2003, the ten top fund groups' share of the net annual inflow of cash in this channel averaged 78 percent. In 2003, for example, just three fund groups—Vanguard, Fidelity, and Dodge & Cox—garnered total net sales of $58 billion, approximately 93 percent of the channel total. During that same year, 33 percent of directly marketed fund families had net outflows—that is, redemptions exceeded purchases.

Pure Direct Marketing

In the pure direct channel, fund companies sell directly to investors who make their own decisions without the aid of a broker, financial planner, or other intermediary. Once, this pattern described the entire direct channel; by 2000 it accounted for just under one-half of sales in the direct channel, or 15 percent of overall industry sales.[5] Funds attract pure direct investors via advertising, exposure through articles in the news media, mentions by mutual fund research firms, and word of mouth. The typical sequence of events in the pure direct channel goes something like this:

1. An individual with money to invest selects a fund because he or she has seen its advertising, read a newspaper article about it, gathered information via Morningstar or some other research provider, heard about it from friends, visited its Web site, or in some other way learned enough about it to decide that it is a good fit with his or her investment objectives.
2. The investor obtains a prospectus by sending a letter, calling the fund's toll-free number, downloading it from the fund's Web site, or, in a few increasingly rare cases, visiting the fund family's office. Along with the prospectus, the investor gets a new account application.
3. The investor completes the application, and mails it and a check to the fund group's transfer agent (transfer agent functions are covered in Chapter 11). The transfer agent establishes an account for the investor, purchases shares in the fund, and mails the shareholder a confirmation of the purchase. An investor in a hurry to make a big purchase into an existing account with a fund might use the Federal Funds Wire system to get the money to the transfer agent. Investors may also set up programs in which monies are automatically transferred from their bank accounts to make regular fund purchases. (Some fund groups are adding account setup capability to their Web sites as well.)

4. The fund's transfer agent interacts directly with the investor for all subsequent activity, such as providing account statements and tax forms, and notifying the investor of dividend and capital gains distributions.
5. If and when the investor decides to redeem shares in the fund, he or she communicates the order to redeem directly to the fund's transfer agent via mail, telephone, or Internet. The transfer agent executes the redemption trade, and delivers the proceeds to the investor or designated payee via check or electronic transfer.

The fund groups in the direct market are working to automate almost all of these interactions via the Internet. Most fund groups already make prospectuses and marketing materials available via their Web sites. During 1999, a few fund groups started letting investors both open accounts online and make their initial purchases via electronic funds transfer. Some funds began to use e-mail to deliver account statements and other communications.

The pure direct channel is the realm of the big no-load fund families—Fidelity, Vanguard, Janus, American Century, and the like—firms whose advertisements are fixtures in the financial sections of newspapers. However, none of these fund families gets all of its sales from this pure direct channel anymore. Each of these, as well as the hundreds of other directly marketed fund families, depends to a greater or lesser extent upon fund supermarkets, financial planners and advisors, brokerage wrap programs, and defined contribution pension plans to provide some of their sales flow.

Supermarkets

Charles Schwab originated the concept of the mutual fund supermarket in the early 1990s. Discount brokerage firms, which execute investor trades without providing advice, had long handled no-load mutual fund sales, charging the investor a transaction fee for placing a buy or sell order. Volume remained low, however, since investors could purchase shares directly from the fund groups and avoid the transaction fees. Even so, some customers found that the convenience of having all their investment positions recorded in one place and reflected on a single brokerage statement was worth the cost of these fees.

Schwab's stroke of genius was to forge a way to provide this one-stop shopping convenience without forcing the investor to pay transaction fees. Starting in 1992, Schwab executives began to form agreements with no-load fund families that provided for the funds to compensate Schwab on the basis of the assets under management in Schwab-related accounts. The fund manager would pay Schwab an annual fee of 25 basis points (recently raised in most cases to 35 basis points) on the assets that Schwab brokerage custom-

ers held in the fund. The fund could treat this as a distribution expense, and fund it via a 12b-1 charge, or the manager could pay it as a record-keeping fee, since Schwab would do all the detailed record keeping and reporting for these clients. This approach proved popular enough that the assets in the OneSource® program (as Schwab called it) grew from around $15 billion in 1992 to approximately $128 billion in late 2004, and its success spawned numerous competitors.[6]

By one count, brokerage firms (such as Schwab, TD Waterhouse, and Muriel Siebert & Co.) and the discount brokerage arms of fund companies (such as Fidelity, Vanguard, and Dreyfus) operated 30 fund supermarkets in late 2002.[7] The total assets attributable to fund supermarkets cannot be precisely determined because of measurement difficulties. Nevertheless, many industry observers believe that the fund supermarkets have been particularly beneficial for the smaller no-load fund families which otherwise would have faced intractable distribution problems. Funds depending on pure direct marketing have to spend heavily on advertising just to make investors aware they exist. With giants like Fidelity spending tens of millions of dollars per year on advertising, a small firm, say with $10 billion in assets generating less than $100 million in fee revenue, has a hard time spending enough to make itself noticed. If a fund belongs to one or more supermarkets, however, and if its performance is good (e.g., a Morningstar rating of four or five stars), it can gather assets without much advertising. As Standard & Poor's Investment Industry Survey puts it, "the supermarket format actually levels the playing field by giving a small fund as much public visibility as a large one," perhaps mitigating factors that would otherwise cause industry consolidation.[8]

Financial Advisors and Brokerage Wrap Programs

According to industry research firm FRC, pure direct channel sales involving no intermediary peaked in 1995, and have since actually declined. One FRC analyst attributes this to investors seeking advice to help them deal with increasing amounts of assets: "When you make an investment decision with $5,000, you might be able to do that on your own. But when your nest egg reaches the $250,000 mark, you start to get nervous."[9] Some investors turn to brokers for this advice and purchase funds in the broker channels. But the no-load, direct channel funds have not been excluded from a share of the advice-seekers' assets. Fee-based financial planners and brokerage wrap programs funnel money into no-load funds and in doing so constitute an important part of today's direct channel.

A fee-based planner—called a financial planner, financial advisor, registered investment advisor, or some similar label—offers investment advice

in return for compensation that is based on the amount of assets under management rather than on transaction charges. For example, an investor with $250,000 may pay $2,500 per year (100 basis points) to an advisor who analyzes the investor's situation, formulates an asset allocation strategy, and recommends particular investments, including mutual funds. Since the planner gets paid the $2,500 no matter what—regardless of how many or how few trades the investor executes, what types of assets the investor holds, or which mutual funds are included—the potential for conflict of interest is greatly reduced. The planner and the investor share in the rewards as the investor's assets appreciate in value.

Planners interact with the mutual fund companies in several different ways. Some merely advise the investor, who then opens an account and orders trades with the fund. In this case, the shareholder looks just like any other direct investor to the fund company. In other cases, the advisor orders the trades with the funds in the investor's name. Some advisors go through the discount brokers and their fund supermarkets—for example, over 5,000 independent advisors use Schwab as their back office, placing their clients' mutual fund trades through OneSource®. Because the financial planners operate in these different ways, the exact amount of sales and assets they influence remains unclear, although some industry consultants believe they may be involved in as much as one-half of the flow in the direct channel.[10]

Mutual fund wrap programs were rolled out in the early 1990s as a way to offer affluent investors a fee-based package of advice and mutual funds. In the typical wrap program, the investor turns over his or her money to the wrap provider, most often a brokerage firm that engages a manager to allocate it across a portfolio of mutual funds according to the manager's analysis of the investor's situation. The program may periodically rebalance the portfolio when needed due to market action or a change in the investor's needs. At first, most wrap programs offered only no-load funds, but in recent years some load funds have joined wrap programs as these programs have grown in popularity. In 2003, mutual fund wrap products held an estimated $170 billion is assets.[11]

Strategic Insight has noted that the 100 basis points annual asset-based fee has become a de facto standard for advice in the mutual fund industry. In late 1999, they asserted that as many as 80 percent of investors being assisted by financial advisors pay no up-front load charges, but rather pay annual fees of about 100 basis points. Further, they pointed out that even for investors paying front-end loads, pro-rating the sales commission over the holding period would result in an effective annual charge of one percent or less in most cases.[12]

Affinity Groups

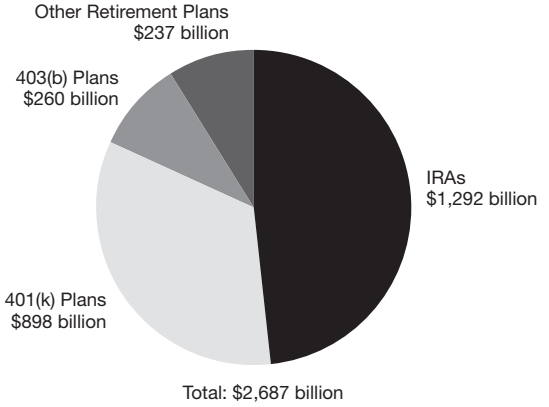
Affinity group funds, which sell primarily to the members of specific standing groups, form a small channel best viewed as a direct subchannel. In late 2004, of the approximately $23 billion of assets in this channel, approximately 77 percent was held by three no-load fund families: General Electric, AMR (American Airlines), and Caterpillar. Each of these was the offspring of an industrial corporation's decision to create registered funds, and investments in each of these still primarily come from employees and affiliates.

Defined Contribution Pension Plans

Tax-advantaged retirement investments have contributed tremendously to both the growth and the stability of the mutual fund industry for the last fifteen years. Figure 9.4 shows that by the end of 2003, defined contribution plan holdings in mutual funds amounted to approximately $2.7 trillion, or almost one-third of the industry total. From the point of view of the fund companies, these plan assets have been particularly attractive because they tend to be "sticky"—investors are less likely to redeem them than they are nonretirement holdings.

Figure 9.5 shows the ten leading mutual fund managers of defined contribution plan programs as of the end of 2003, and the defined contribution assets they held at that time. While direct channel funds, particularly Fidelity and Vanguard, lead the pack in attracting defined contribution assets, these flows

Figure 9.4 Mutual fund assets by type of retirement plan, 2003.*



*Preliminary data

Sources: 2004 Mutual Fund Fact Book, Federal Reserve Board, Internal Revenue Service, and Department of Labor, copyright © 2004 by the Investment Company Institute (www.ici.org). Reprinted with permission.

Figure 9.5 Leading mutual fund managers of defined contribution plan programs as of 12/2003.

Manager	DC Assets in Family's Managed Funds ($ billions)*	DC Percentage of Family's Total Assets	Primary Distribution Channel
Fidelity	316.3	40	Direct
Vanguard	148.7	22	Direct
American Funds **	130.4	26	Nonproprietary brokerage
Putnam	30.7	23	Nonproprietary brokerage
T. Rowe Price	30.0	25	Direct
Janus	27.1	28	Direct
PIMCO Funds	23.0	16	Proprietary brokerage
Franklin Templeton	21.5	11	Nonproprietary brokerage
Merrill Lynch	18.4	10	Direct
Oppenheimer Funds	16.1	13	Proprietary brokerage

Source: Strategic Insight, Defined Contribution Plan Investments in Mutual Funds August, 2004

*Strategic Insight explains the derivation of these figures as follows: "Only the largest open-end fund managers of DC assets, from those that participated in SI's survey of year-end 2002 results (among major omissions are Dodge & Cox and MFS)."

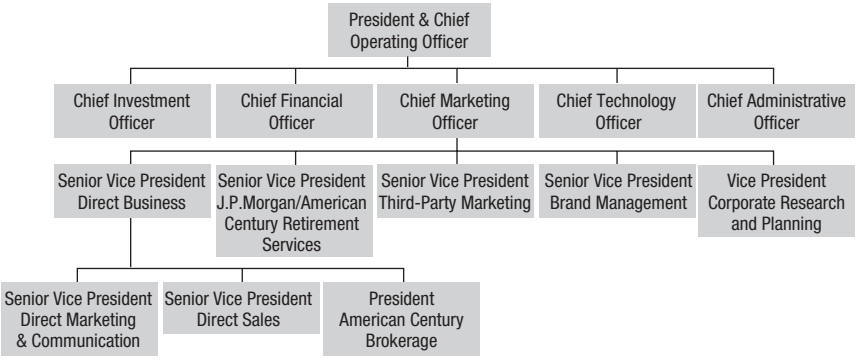
**Data for the American Funds includes an estimate for assets held in street name and other omnibus accounts.

and assets clearly cross distribution channels. Retirement savings have affected the industry significantly enough to merit special attention. The mechanics and effects of retirement investing are covered in the next chapter.

Distribution at American Century Investments

With more than $110 billion under management in early 2000, American Century Investments contended with T. Rowe Price and Janus for third position among directly marketed no-load fund companies, behind industry giants Fidelity and Vanguard. American Century had reached this position through both organic growth and mergers. The company had started as Twentieth Century Investments in 1958, when founder James Stowers, Jr., established two funds to provide his insurance and brokerage clients with investments that could outpace inflation. To this end, Twentieth Century specialized in aggressive growth investing. The company grew slowly for two decades, took off with the general expansion of the industry in the 1980s, and by 1995 was managing $26 billion in 27 funds. In that year, Twentieth Century merged with The Benham Group,

Figure 9.6 American Century Investments, partial organization in early 2000.



a fixed income fund specialist, in a move designed to create a fund family that covered the full spectrum of investment objectives. In 1998, having changed its name to American Century, the company struck a business partnership with J.P. Morgan (through which Morgan acquired a 45 percent economic interest in American Century) to help both firms pursue market opportunities, particularly in defined contribution retirement services.

American Century in 2000 (see Figure 9.6) illustrated the complex set of channels in which the modern no-load fund family operated. For several years the pure direct channel had been diminishing as a relative proportion of new sales. In 1998, American Century President and Chief Operating Officer Bill Lyons stated in an interview that while the traditional direct business was still "tremendously important," and accounted for two-thirds of profitability, it was clear that they could not reach all potential customers through this channel.[13] By 2000, American Century had deployed an organization that reflected this need to address multiple channels, dividing marketing responsibilities among three major groups: direct, retirement plans, and third party.

Marketing in the Direct Channel

Joseph Greene, senior vice president of Direct Marketing and Communications, headed a group of about 50 people in early 2000 to address the traditional, pure direct channel. Approximately 30 of these focused on direct marketing, and the remainder handled communications—producing educational and informational materials for shareholders. The direct marketers were responsible for developing and delivering marketing programs addressed to

investors who buy and hold American Century funds without using intermediaries. He described the challenge of this job: "We have to make the right fund product and service offers to the right audience, at the right time, with the right message, and deliver them via the right medium. It's a lot to get right."[14] But getting it right was important, since the direct channel still accounted for over one-half of the fund family's assets in 2000.

To help with this task, American Century had developed a sophisticated customer data mart that its marketers and analysts could mine to help them understand the shareholder base and the needs of its various customer segments. This data mart merged transactional data from the transfer agent system with demographic and behavioral data purchased from external sources. It provided retrieval and analysis tools with which American Century users could study patterns within the customer set, and group customers into meaningful segments for service delivery and marketing. Targeting marketing campaigns to specific segments enabled American Century to make them more effective, increasing direct mail response rate, for example. The company also used this segmentation to help investor relations representatives' better handle shareholder interactions—for example, to evaluate suitability when an investor wanted to switch funds. "Our end goal," according to Greene, "is to better serve those investors who come to American Century looking to achieve their investment goals."

In addition to distributing through intermediary channels, American Century was moving to address the increasing investor need for advice within the direct channel itself. In early 2000, the firm delivered an online advice program to its investors via its web site. This program was unique among advice engines offered by the directly marketed funds in that it would recommend funds from families other than American Century when circumstances warranted. Greene commented that while this might produce some short-term erosion, over the long term it would serve to increase shareholder loyalty, since it delivered what the investors were asking for (advice) via a medium they increasingly wanted to use (the Internet).

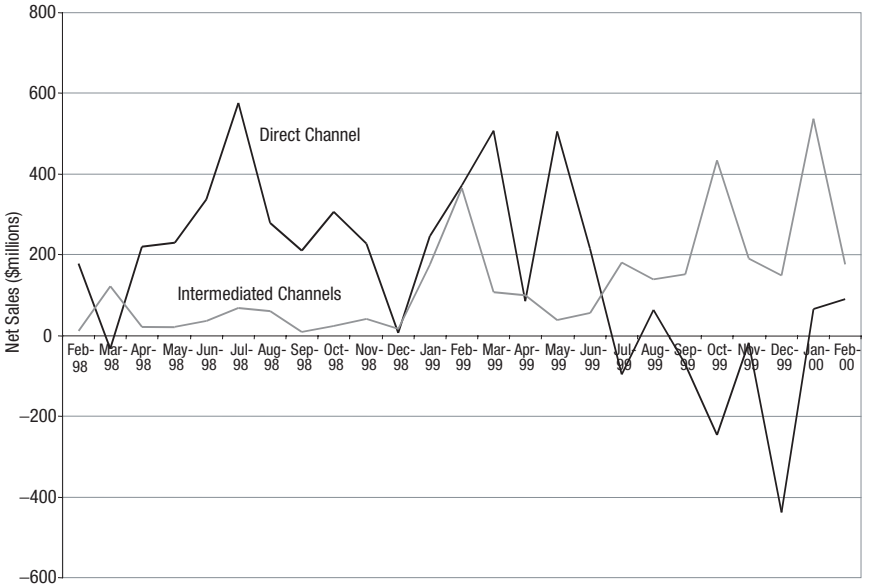
American Century's direct channel division also included direct shareholder services and brokerage. Company management viewed good service delivery as so integral to effective marketing that they believed that these should be in a single organization. In fact, two members of the direct marketing and communications group devoted their entire time to coordinating marketing efforts with shareholder service—for example, making sure that customer service representatives had full information on marketing programs that might spawn shareholder questions.

American Century launched its discount brokerage operation in November 1997, to provide for investors who wanted to trade in individual equity and fixed income securities, as well as in funds from other families. "We'd love it if everyone would just invest in our funds, but let's face it, some people are going to want to hold different securities and funds, and they want to do it in one place," Greene said. "While fund supermarkets are major distributors of our funds to investors, we'd like to see our mutual fund customers looking for brokerage services or other funds to remain with American Century and use our brokerage service for as many of their investment needs as possible."

The Intermediated Channels

While the direct channel remained the foundation of the asset base, the patterns within American Century's net sales during the 24 months ending in February 2000 (as reported in Strategic Insight's Simfund® MF database) showed clearly why the intermediated channels were also appealing (see Figure 9.7). During that period, sales in the direct channel varied widely, sometimes strongly positive, other times strongly negative. Sales through the broadly defined intermediated channels—retirement plans, broker wrap programs,

Figure 9.7 American Century Investments, net sales flows in direct and intermediated channels.



Source: Strategic Insight Simfund

banks, and other fee-based intermediaries—showed much less variability and remained generally positive and growing. These channels, especially retirement plan services, brought "sticky" money to the funds.

Retirement plans. In early 2000 retirement plans accounted for around 13 percent of the assets invested in American Century funds. American Century provided record-keeping services for some of these plans; for others, it provided only the investments. Attacking this market had been one of the primary motivators of American Century's partnership with J.P. Morgan, since the two firms approached it in different but complementary fashion. American Century could do the full bundle of services, but reached mostly the smaller plan market. J.P. Morgan had large plan sponsors as clients, but provided investments only. Together they could offer a wide range of options to the full spectrum of clients. As a result, institutional sales through J.P. Morgan/American Century Retirement Plan Services experienced rapid growth beginning in 1999 and continuing into 2000.

Third-party marketing. Third-party retail channels accounted for the remainder—approximately one-third—of the assets under management in American Century funds in early 2000. The Third Party Marketing Department contained three discrete groups that targeted these channels.

1. *Insurance.* A number of insurance companies, such as Nationwide, Aetna, and American Skandia, used American Century funds within the variable annuity and defined contribution plan products they offered. For example, American United Life Insurance Company, a pension record keeper specializing in small plans, included several American Century funds (along with funds from other families) as investment options in the bundled 401(k) and 403(b) products it sold. American Century's insurance channel group focused on these clients. Each major insurance company that used American Century funds had a team assigned to call on the company and provide it with marketing materials and support.
2. *Bank.* American Century formed a group in 1997 to focus specifically on the bank channel, and by 2000 it was selling to the brokerage units and trust departments of over 100 midsize and smaller banks. This group deployed wholesalers who called on and worked with the banks' sales forces, much as traditional load fund wholesalers do. In discussing this effort in 1999, David Larrabee, former head of the bank sales unit, described marketing in this channel as coming down to "knocking on doors and providing good service."[15] American Century's success in penetrating this market had led to rapidly growing bank sales, and in 1999, banks accounted for around 20 percent of total net sales.

3. *Investment advisors.* The IA group handled both brokerage firms and independent financial advisors who sold funds to retail investors, usually as part of a fee-based service. Brokerage firms sold American Century funds mostly as part of fund supermarkets or wrap programs. American Century had joined Schwab's OneSource® in the second year of its operations, and in 2000 had over $5 billion in assets from this source. Full-service brokers, such as Merrill Lynch or Prudential, used American Century funds in the wrap programs they offered their clients.

   Recognizing the growing tendency of retail investors to seek advice, the company planned in 2000 to double the size of its team of wholesalers who focused on wire houses and regional broker dealers. Like many no-load fund groups, American Century had added share classes with 12b-1 fees (its Advisor class, with a 50-basis point fee) to attack the broker and financial planner market. Whether this would be sufficient remained to be seen—American Century was considering in 2000 whether to add class C shares with larger 12b-1 fees to increase its funds' appeal to the broker dealer community.

Advertising

Supporting all these channel marketing efforts were corporate groups for advertising, brand management, and product management. In early 2000, American Century had just launched a national advertising campaign aimed at enhancing its brand recognition. The campaign targeted both investors and intermediaries with cable and network television spots and print ads. The general theme of the advertisements linked the American Century name with American "iconic scenes," such as a seaside house under construction or a college graduation.[16] These ads helped viewers answer the question "Who are you?" about American Century, explained Michael Barr, senior vice president of brand management.

In previous campaigns, American Century had advertised specific products, and superior investment performance. Television spots planned for later in the year might again focus on specific products. American Century stated that it planned an increase in its advertising budget for 2000, a budget that Competitive Media Reporting estimated to have been in the $30 million range for 1999.

The 12b-1 fees assessed on the Advisor class shares paid brokerage firms that distributed those shares, but for the most part American Century funded its marketing activities out of management company revenues. These came from the unitary fee American Century charged the funds for all manage-

ment company activities, including investment advisory, administration, and investor servicing. Thus marketing contended with the other functional areas within American Century for a share of the finite pool of funding provided by this fee.

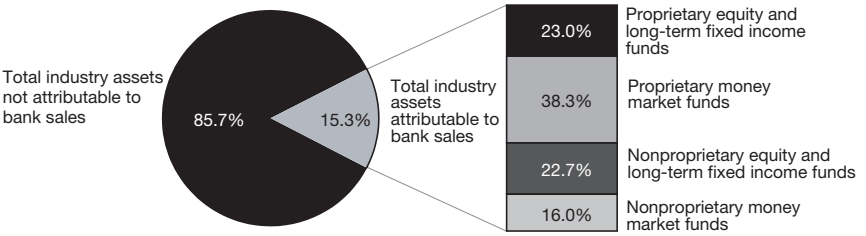
The company's structure as a private company allowed it to make these trade-offs as its management judged best. "Being private allows you to think longer term and plan longer term without having to respond to the relentless drumbeat of quarterly earnings," said Bill Lyons.[17] By all evidence American Century was doing this successfully. While the company did not disclose its financial results, assets under management continued to grow, and J.P. Morgan mentioned in its 1999 annual report that its equity investment in American Century had increased in value, suggesting that profits did as well.

The Bank Channel

If the dramatic growth of the mutual fund industry in the 1980s and 1990s came at anyone's expense, it was that of the banking industry. Regulation Q drove money out of bank deposit accounts into money market mutual funds in the late 1970s to kick off the industry's explosive growth spurt. Their money market fund experience taught many Americans the advantages of mutual funds, so that they used them to invest in stocks and bonds as these became attractive in the 1980s. As the mutual fund industry's share of American savings and investments went steadily up, the banking industry's share went down. When a Federal Reserve Bank senior economist studied the industry's historical growth and analyzed the question "Where did all this money for mutual fund investments come from?" he concluded that it mostly came from diversion of assets from other savings and investment vehicles, notably bank deposits.[18]

The banking industry has not given up without a fight, however. Banks earn revenue from mutual funds by selling them as part of their retail investment product programs (earning commissions and transaction fees), and some banks manage their own mutual fund families (earning management fees). Figure 9.8 shows the breakdown of mutual fund assets attributable to sales activity by banks as of 1995, the most recent time the Investment Company Institute published such figures. As of September 2004, the total assets held in bank proprietary funds (the bank category currently tracked by Strategic Insight) had grown to over $750 billion. These assets do not include the nonproprietary funds sold in banks. These sales of nonbank funds by banks show up in Strategic Insight's data for other channels, mostly nonproprietary brokerage.

Figure 9.8 Mutual fund assets attributable to bank sales, 1995.



Source: "Mutual Fund Statistics for the Bank Distribution Channel Fundamentals," copyright © 1996 by the Investment Company Institute (www.ici.org). Reprinted with permission.

The ten leading managers in this channel—JP Morgan, Nations Funds, Wells Fargo Bank, US Bancorp, Northern Trust, Citigroup Asset Management, Trusco Capital, Columbia Management Advisors US Trust, and WM Advisors—held approximately 75 percent of the channel's assets as of September 2004. For the most part (95 percent of assets under management as of the end of 2004), these bank-managed funds are no-load funds.

Selling investment products has become important to banks. A 1999 survey found that 94 of the top 100 banks (in terms of capitalization) offer securities, including mutual funds.[19] Mutual funds accounted for 43 percent of the revenue banks earned from these consumer investment sales in 1998.[20] Banks sell investment products, including mutual funds, in a number of different ways. Some banks use broker dealers, either bank employees or employees of separate firms that specialize in marketing investments in banks. An increasing number of banks license members of the staff to sell investments as part, but not all, of their duties with the bank. Some banks run hybrid programs—a combination of traditional full-time brokers and licensed bank staff—with relatively low-cost licensed staff making sales wherever appropriate, and more expensive brokers handling those sales situations requiring "high touch."[21]

Regulations have hobbled banks over the years as they have tried to participate in the mutual fund industry. It was not until 1971 that federal law permitted a bank to act as an investment advisor to a fund. The Glass-Steagall Act of 1933 and the Bank Holding Company Act of 1956 prohibited banks from selling securities and prohibited bank holding companies from owning firms that sell securities, respectively. Mutual fund distribution fell under the definition of selling securities, so banks or subsidiaries of bank holding companies could not directly serve as mutual fund underwriters or distributors. Instead, they

contracted with outside firms to act as distributors. Thus, for example, when Mellon Bank bought Dreyfus in 1994, it had to move distribution from Dreyfus' internal distributor to an external third party.

The Gramm-Leach-Bliley Act of 1999 (also termed the Financial Modernization Act) removed this constraint, by creating a new category of "financial holding company" that could contain both banking and securities firms (as well as insurance companies). Among other things, this allowed bank-owned fund companies to do their own distribution, and in early 2000, Mellon Bank became the first to do so, bringing distribution for the Dreyfus Funds back in-house. The ultimate effect on bank mutual funds of this Act remains to be seen, however. While some believe that it could prompt banks to acquire mutual fund companies (or, in a few cases, vice versa), others hold that banks have already been driven by customer needs and competitive pressures to fully include mutual funds within their product offerings.[22]

Insurance Sales of Mutual Funds

Insurance company proprietary funds—that is, mutual funds that are both managed and distributed by a particular insurance company—form a small channel dominated by a handful of firms. At the end of 2004, assets in this channel aggregated approximately $45 billion, less than one percent of the industry total. The top ten firms in the channel—New York Life, Thrivent, State Farm, Princor, Sentinal, Northwestern Mutual, Cigna, Country Trust, Farm Bureau, and Citigroup—controlled approximately 99 percent of the assets. These are mostly load funds—approximately 26 percent of the assets as of the end of 2004 were held in long-term funds categorized as no-load.

The insurance channel operates much as the proprietary brokerage channel does: A captive sales force—the insurance company's agents—sells mutual fund shares along with insurance policies. However, not every insurance company that manages mutual funds distributes them through this channel. Prudential's funds, for example, fall into the proprietary brokerage channel, since Prudential operates a full-service broker dealer that sells, among other things, these funds. The USAA family of funds, on the other hand, falls into the direct channel, since USAA operates as a direct marketer for all its products.

The Institutional Channel

Institutional funds seek organizations, not individuals, as shareholders. They typically require very high minimum investment amounts, often $2 million or more. In return, they offer the institutional investor the opportunity for a higher return than could be achieved by an equivalent fund offered to retail

investors. Several characteristics of institutional funds—the higher minimum investment, more stable flow of funds institutions provide, and generally focused requirements of institutional investors—allow institutional funds to keep their expenses significantly lower than their retail counterparts, as Figure 9.9 clearly illustrates.

Who are these institutions that invest in mutual funds? According to the Investment Company Institute, they fall into several categories:

- *Fiduciaries*. These are primarily bank trust departments that are managing wealth in individual trust accounts, but also include entities such as legal and accounting firms acting as trustees. Bank trust departments often use mutual funds as investment vehicles for their clients because of the liquidity and easy redeemability of funds. Many banks converted their common trust funds (unregistered investment pools managed strictly for their trust clients) to registered mutual funds in the 1990s, in part to serve their trust client needs.
- *Corporations.* Many corporations, particularly smaller ones, find it less expensive to use institutional money market funds to manage their operating capital than to use in-house managers. Some insurance companies also find it less expensive to use institutional equity funds instead of in-house equity managers. (Insurance company asset managers are strongly slanted toward fixed income investments because of their need to match the company's underwriting liabilities.)
- *Nonprofit organizations and foundations.* This category embraces a wide range of organizations, including credit unions, hospitals, sanitariums, orphanages, schools, colleges, cemeteries, municipalities, townships, and cities. Many nonprofits find it easier, less costly, and more effective to use institutional funds to manage their assets than to use internal asset managers. For example, credit unions, even large ones, often put their nonloan assets into institutional mutual funds.
- *Retirement plans.* Retirement plans often hold institutional funds, or the institutional share classes of retail funds, to benefit from the lower cost structure.

Institutional fund assets aggregated approximately $1.4 trillion at the end of 2004, or 19 percent of the industry total. The ten top fund groups in this channel—Federated, PIMCO Funds, Fidelity, Vanguard, Goldman Sachs, Evergreen, Merrill Lynch, SEI, Dreyfus, and Blackrock—held 54 percent of institutional fund assets. Some of the names in this list have appeared in the lists of top fund groups for other channels as well. While some fund groups such as SEI focus primarily on the institutional channel, most fund groups that offer institutional funds also sell funds to individual investors in other channels.

Figure 9.9 Comparison of expenses between institutional and retail funds.

	Weight-by-Average Total w/o 12b-1 Fee %	
Fund Type	Institutional 2003*	Retail 2003**
Equity	0.874	0.843
Tax-Free Bond	0.536	0.513
Taxable Bond	0.458	0.618
Taxable Money Market	0.220	0.409
Tax-Free Money Market	0.289	0.418

*Asset-Weighted Average Fiscal-Year 2003

**Open-End Funds Only

Source: Strategic Insight Simfund

Institutional funds are, by and large, no-load funds, which represent approximately 98 percent of the assets in this channel. The handful of funds classified as load-bearing have either a two percent (or less) front end load, or a trail commission greater than 25 basis points.

The Distribution Big Picture

Precise delineation of exactly what monies flow through which distribution channels remains difficult. Nevertheless, Strategic Insight has made an attempt to estimate these flows for all channels for all purchases made into long-term mutual funds in 1998. Long term includes stock, bond, and hybrid funds, and excludes money market funds. Figure 9.10 shows SI's estimated breakdown.

Figure 9.10 paints a picture of a rich and diverse distribution landscape, in which monies flow from investors to funds through multiple channels, no one dominating. Over time, the industry's emphasis on channels has changed—for a while in the mid-1990s, load fund companies were launching no-load funds to exploit what appeared to be a growing taste for directly marketed funds. In 1999 and 2000, the pendulum had swung so that no-load fund families were launching load funds to exploit investors' growing dependence on intermediaries. Interestingly, evidence suggests that investors themselves remain stable—that only about one in ten mutual fund shareholders makes purchases in more than one distribution channel.[23] This suggests that the big pattern—a majority of intermediary sales, and a minority of direct, do-it-yourelf sales—is unlikely to change in the near future.

Figure 9.10 Strategic Insight estimates of 1998 cash flows into stock and bond mutual funds, by method of purchase.

	$Billions	Share (%)
To "Do It Yourself" Buyers:	26	10
Direct to Investor	15	6
Direct—as funds	14	5
Direc—as variable annuities	1	0
Through No-Load Supermarkets to Individual Investors	11	4
Direct, no-load funds	10	4
Load company funds at NAV	1	0
Financial Intermediaries to Individual Investors:	156	60
Through Registered Investment Advisors	11	4
Broker Dealer Distributed	72	28
Brokerage Companies with Commissions	47	18
Mutual Fund Wraps	23	9
Broker Companies' Funds	18	7
Direct and Institutional Companies Funds	5	2
Bank Distributed	41	16
Bank Proprietary Funds	26	10
Third-Party Fund Selling in Banks	15	6
Variable Annuities (excluding DC plans)	32	12
Defined Contribution Plans	**55**	**21**
Institutional	**21**	**8**
Total	**258**	**100**

Source: Strategic Insight Simfund

chapter 10 | Cross-Channel Issues: Advertising and Retirement Investing

You'd think a dog chasing his tail in a television commercial is going crazy for the latest flavor of Alpo dog food, right? How about a surfer gliding along a big blue cresting wave – a California vacation?

Wrong. The dog and the surfer are selling mutual funds.

– Andrew Fraser (1998)[1]

This chapter wraps up the discussion of mutual fund marketing and distribution, focusing on three topics that cut across the distribution channel structure covered in the previous two chapters. The first is advertising. Virtually all fund companies, whatever their primary distribution method, engage in some form of advertising, ranging from serious, even dull, declamations of fund characteristics to typical creative mainstream television commercials such as the ones mentioned above. The first part of the chapter focuses on mutual fund advertising—the regulations that govern what can and cannot be done, the ways different management companies approach advertising, what they achieve with it, and the issues that it raises.

Second, the enormous resources Americans have devoted to retirement savings over the past two dozen years have swelled the flow of money into funds in all the distribution channels. The second part of this chapter focuses on the two types of retirement savings vehicles that have contributed most significantly to this effect—individual retirement accounts and defined contribution pension plans. It describes how these work, how they interact with mutual fund investing, and how the fund industry has been affected by them. Finally, the chapter concludes with a discussion of the role and effects of marketing and distribution activities in the mutual fund industry.

Mutual Fund Advertising

Like most business organizations, mutual fund companies advertise to stimulate sales. They use ads to raise investors' awareness of their products, to bolster the image of the management companies, to promote the advantages of mutual funds over other savings and investment vehicles, and to point out the superior characteristics of their particular funds. They place their advertisements in all the usual channels—print, television, radio, billboards, the Internet. Mutual fund management companies and distributors, however, must adhere to stricter regulations controlling what they can say and how they can say it than firms in many other industries. Understanding mutual fund advertising must start with a review of the regulations that apply to it.

The Regulations Governing Fund Advertising

The Securities Act of 1933 regulated the offering and sale of securities to the public, including open-end mutual funds. The 1933 Act required that securities be sold only by means of a prospectus that met stringent requirements for full disclosure of all pertinent information. The Act defined the term prospectus very broadly, to include any advertisement or other communication "written or by radio or television, which offers any security for sale or confirms the sale of any security."[2] A fund could deliver advertising materials that did not meet the standards required for a prospectus, but only if that material was accompanied by or preceded by a full current prospectus.

This placed a severe limitation on a fund's ability to advertise effectively, since providing a full prospectus is neither an attractive nor cost-effective means of reaching a wide audience. As the SEC's Division of Investment Management has pointed out, Congress almost certainly did not have open-end funds, with their continuous distribution pattern, in mind when it drafted the 1933 Act.[3] For a typical corporation, which makes public offerings of its securities only at infrequent intervals, the prospectus rule imposed no great burden. For an open-end fund, which attempted to reach new investors every day, it was a severe handicap to have to send a prospectus as the only way to advertise. Mutual fund executive William A. Parker complained in 1936 that the 1933 Act "made advertising in the ordinary form impossible."[4] Nevertheless, the industry operated under this constraint for 22 years.

The first relief came in 1955, when the SEC adopted Rule 134, "Communications Not Deemed a Prospectus."[5] Rule 134 allowed notices, circulars, advertisements, letters, or other communications, so long as they (1) appear after the fund's registration statement has been filed, and (2) contain only the specific information permitted by the regulation. Such Rule 134 adver-

tisements bore the label "tombstone ads," because the original SEC requirements—long since relaxed (and now superseded)—restricted the ad to austere, just-the-facts prose enclosed in a box resembling a tombstone. In fact, mutual funds found they could exercise a great deal of latitude in designing Rule 134 advertisements:

- They *may* include the name and other descriptive information about a fund, including its investment objective, general attributes, methods of operation, and services offered; the fund's net asset value; the names of the investment advisor (and how long it has been in existence) and distributor; a logo or other graphic design; and an attention-getting headline (as long as the headline does not allude to performance figures).
- They *must* include information about how to obtain a fund prospectus.
- They *must not* include any performance figures, illustrations that represent performance, or allusions to fund performance.

A Rule 134 tombstone advertisement could be recognized by the fact that it (1) talks about a specific fund, but (2) does not mention the fund's investment performance in any way. Figure 10.1 shows an example of a tombstone ad. As discussed below, the SEC ended Rule 134's applicability to mutual funds in 2003 when it relaxed the requirements of other rules.

Figure 10.1 An example of a Rule 134 "Tombstone" advertisement.

Source: Franklin Distribution, Inc. Member of the Franklin/Templeton Group

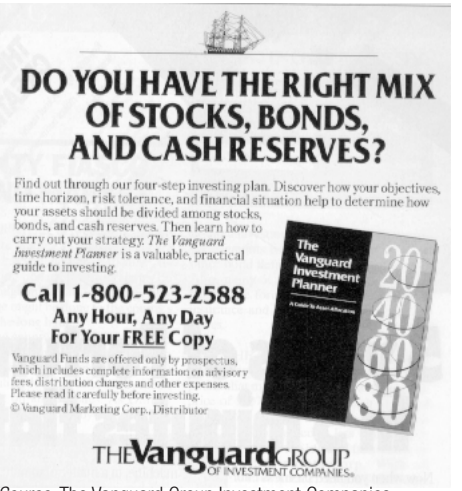
The SEC gave the industry a second way to advertise when it adopted Rule 135A, "Generic Advertising," in 1972. Rule 135A allows investment company advertising that does not offer a particular security (i.e., fund) for sale, and therefore does not trigger the need to deliver a prospectus. Such advertisements promote a fund company as a whole rather than a particular fund. A rule 135A advertisement must comply with the following requirements:

- It may include information explaining mutual funds generally, or different types of funds (such as balanced, growth, no-load, etc.), and it may invite inquiries for further information.

- It must include the name and address of the fund group, broker, distributor, or other entity sponsoring the ad.
- If it describes any type of security, product, or service (such as a fund), then the ad sponsor must actually offer such a security, product, or service.
- If the ad invites inquiries in response to which a fund prospectus will be sent, the sponsor must disclose if it is the principal underwriter or investment advisor for the fund.

Today's mutual fund industry does a great deal of Rule 135A advertising, particularly as part of efforts to develop a brand image for a fund family. For example, John Nuveen & Company ran a controversial Rule 135A television advertisement during the 2000 Super Bowl, that showed, via computer graphics, paralyzed actor Christopher Reeve appearing to walk. In describing the ad, a Nuveen spokesman said that its "purpose was to raise awareness about the impact money can have on the future."[6] Presumably this would then make the viewer more inclined to consider Nuveen as a company with which to invest. Figure 10.2 shows another, more conventional, example of a generic ad allowed under Rule 135A.

Figure 10.2 An example of a Rule 135A "Generic" advertisement.



Source: The Vanguard Group Investment Companies

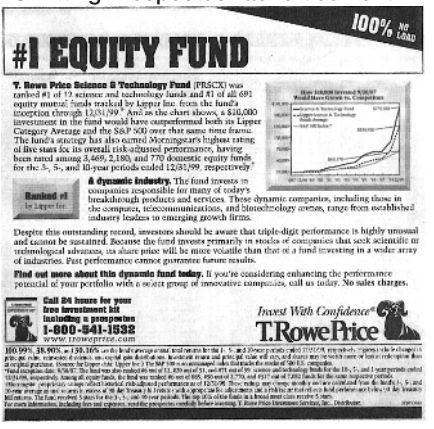
Neither Rules 134 nor 135A allowed funds to mention their performance in advertisements, and representatives of the industry complained to the SEC that this severely hampered their ability to reach potential investors. In 1979, the SEC adopted Rule 434d (now Rule 482), which permitted funds to use "omitting prospectuses" as advertisements. This rule allowed a fund to create an advertisement that included any "information the substance of which is included in the section 10(a) prospectus," but which didn't have to include all of the prospectus. In other words, the fund could select or summarize any prospectus information to put into an advertisement, and omit the rest. This opened the door to advertising based on fund investment performance.

Rule 482 actually allows fund advertising to contain performance numbers that do not explicitly appear in the prospectus. As the SEC explains it:

To make the rule workable, investment companies have not been required to put actual performance figures in the statutory prospectuses, which would have resulted in investment companies constantly having to "sticker" their section 10(a) prospectuses. Rather, advertisements are deemed to meet the "substance of" standard of rule 482 as long as the section 10(a) prospectus describes the methodology used to calculate the performance figures.[7]

So when a Rule 482 advertisement appears, such as the one in Figure 10.3, the numbers it shows don't appear anywhere in the current prospectus. Instead, Item 21—calculation of performance data—in the SAI lays out in detail the formulas with which the numbers were derived.

Figure 10.3 An example of a Rule 482 "Omitting Prospectus" advertisement.



Source: T. Rowe Price

Mutual fund advertisements that cite performance figures have generated much controversy. In the years immediately after the rule was adopted, fund companies enthusiastically advertised their top-performing funds, but the lack of standards for presenting performance led to problems. Funds were free to compute and present their performance any way they wished, so naturally they chose the method and interval that showed them to best advantage. For example, fixed income funds might display their yields over a one-year period when interest rates were dropping, but switch to a one-week figure when rates were rising. In 1985, the head of the SEC's investment management division spoke out criticizing this aspect of fund advertising practices, saying, "If you read the ads, you get the impression there are 50 funds out there that are No. 1. We want investors to have a better basis for comparison."[8]

The SEC acted to correct this problem in 1988, by adopting stricter guidelines for performance advertising. Under the new rules, a fixed income fund that chose to mention yield had to show a 30-day yield figure based on an industry-standard formula, and it also had to disclose the fund's total return (income plus changes in NAV per share) for one-, three-, five-, and ten-year periods. Equity funds that wanted to mention performance likewise had to disclose returns for all these periods (unless the fund was too young for a period to apply). At the same time, the SEC strengthened the rules requiring fee disclosure, especially 12b-1 fees, in fund advertisements.

The SEC and NASD have continued to tune the regulations regarding the advertisement of fund performance. In 1994, they reacted to fund companies' increasing reference to fund rankings published by agencies such as Lipper and Morningstar. Both organizations adopted new rules standardizing the use of these ratings in fund advertising, rules designed to prevent funds from cherry-picking among the rankings to present only those most favorable to the fund. In 1997, with the SEC's approval, NASD revised its guidelines for the prescribed time periods funds must include when advertising their rankings.

In 2000 the performance advertising issue bubbled to the surface again in conjunction with the phenomenal returns some funds achieved in 1999. For example, 177 funds achieved total returns exceeding 100 percent in 1999, the first time that more than six funds had managed this feat in a calendar year.[9] Hundreds more funds had return figures in the high double digits for the year. If fund companies were to use these exceptional figures in their advertising without explicitly pointing out that such performance is unlikely to be repeated, they risked violating the adequate disclosure rules. In 1999, the SEC fined one fund group for failing to disclose in advertising that its exceptional performance was the result of unique IPO activity. Seeing this action, many fund firms added explicit language to their ads in early 2000, warning that the conditions that resulted in such robust performance in 1999 probably would not continue in the future.

For example, in its Rule 482 ad shown in Figure 10.3, T. Rowe Price has been very careful not to imply that the fund will continue to perform as it has in the recent past. The ad puts the caveat in the main body of the text, while relegating the spectacular performance numbers to the fine print. Nevertheless, the widespread display of spectacular 1999 returns in fund advertising has drawn renewed criticism, such as one columnist's assertion that Mark Twain's famous saying should be amended to "lies, damned lies, statistics, and fund ads."[10]

This controversy around performance advertising will never die, since it, like so many industry disputes, reflects the deep philosophical disagreement over the value of active management. An advertisement that calls attention to a fund's superior performance over some period in the past implies that (1) the superior performance results from the actions of the portfolio manager, and (2) the portfolio manager can continue to outperform. A believer in passive management rejects both of those assumptions. Even some active management proponents have problems with the second assumption, that the fund's past performance is a valid predictor of its future performance. In fact, rule 482 ads must state that "past performance is no guarantee of future results." This doesn't satisfy the critics, who liken this caveat's effectiveness to that of

the warnings on cigarette packages—the confirmed performance chaser, like the confirmed smoker, simply ignores the warning.

In 2003, the SEC modified Rule 482 to eliminate the requirement that the advertisements could contain only material the substance of which was contained in the prospectus or SAI. The SEC felt that this obviated any further need for Rule 134, since under the modified Rule 482 fund companies could do anything they formerly could do under Rule 134. As a result, the SEC eliminated the applicability of Rule 134 to registered investment companies.

The amendments to Rule 482 did more than just eliminate requirements. They also required certain enhanced disclosures—for example, if performance information is included in an ad, then the investment company must provide total return quotations to the most current month-end, within seven business days of each month-end. (And it permits them to do this by referring to a web site with the current information.) The rule also requires the advertisements to contain a statement that advises the investor to consider fund risks, charges, and expenses, among other things, and explain that the prospectus contains this information. When the rule changes were proposed, many commenters opposed the elimination of Rule 134 for funds because of the increased requirements associated with modified Rule 482, but the SEC nevertheless made the changes.

In addition to stand-alone advertising pieces, fund companies can and do make considerable use of supplemental sales literature—i.e., items that accompany or follow a prospectus. For example, fund companies may insert supplemental sales items into a prospectus, or mail them to existing shareholders in a fund along with statements and confirmations. Since the investor is deemed to have received a full prospectus, these supplemental materials do not constitute advertising that falls under the limitations of Rule 482, but they are subject to the general antifraud provisions of the federal securities laws. They are also subject to the provisions of Rule 34b-1 ("Sales literature deemed to be misleading") of the 1940 Act. As a result, supplemental sales literature that includes performance information must adhere to the performance reporting standards imposed on Rule 482 advertisements.

All of a fund's advertising materials must be submitted for review by the SEC or NASD. Section 24(b) of the 1940 Act requires that any mutual fund ad be filed with the SEC within 10 days after its first use. However, any mutual fund manager or distributor that is a member of NASD must file all its advertisements with that body. SEC Rule 24b-3 (1940 Act) states that this filing with NASD effectively counts as filing with the SEC. For all practical purposes, therefore, NASD is the body that reviews mutual fund advertising, except for that small (about 3 percent) part of the industry that does not belong to NASD.

Fund Advertising in the Twenty-First Century

Mutual fund companies collectively raised their level of expenditures on advertising through most of the 1990s. In 1990, financial services firms spent around $140 million on consumer investment advertising, some of which represented fund companies advertising funds.[11] In 1996, the fund companies themselves were spending almost that much just on television advertising.[12] By 1998, fund management companies alone were buying advertising at an annual rate of over $469 million,[13] and total annual mutual fund advertising spending by fund companies, brokerage firms, banks, and insurers was pushing $900 million.[14] In the great pool of American advertising, however, mutual funds remain small fish—one big consumer products firm (such as Procter & Gamble, at $3.5 billion worldwide) spends more in a year on advertising than the entire mutual fund industry does.

In the first part of the twenty-first century, two shocks to the investment world affected the levels of advertising of fund companies. First, the significant downturn in the equity markets that started in 2000 when the dot-com bubble burst reduced fund companies' revenues, causing them in turn to reduce expenses, including advertising. Second, the terrorist attacks of September 11, 2001, and the resulting steep market decline, severely aggravated what was already a problematic situation. Table 10.1 shows estimates for fund company spending between 1999 and 2004 on advertising in magazines, newspapers, and television. In 2002 and 2003, when the aftermath of the terrorist attacks was still depressing the market, these expenditures dipped to their lowest levels in a decade.

The nature and placement of mutual fund advertising has also evolved. Once mainly appearing in print in the financial sections of newspapers and in television, both network and cable; in a wide spectrum of periodicals, business

Table 10.1 Mutual Fund Expenditures on Advertising in Magazines, Newspapers, and Television

Year	Advertising Expenditures ($millions)
1999	311
2000	356
2001	266
2002	131
2003	124
2004	187

Source: Competitrack, Inc.

magazines, mutual fund advertisements now show up on radio and from *Fortune* to *Vanity Fair*; on the sides of buses and on billboards in airports, railway terminals, and baseball stadiums; and as banners on Web pages. In recent years, television in particular has consumed an increasing portion of the industry's ad budget, as much as 58 percent in early 1999.[15] Mutual fund marketers view television as particularly effective for advertising aimed at building a fund company's brand image. As many firms start to worry about maintaining positive flows in an industry they believe is maturing, they turn to advertising to help them establish the sort of brand identity and customer loyalty such firms as Disney, Harley-Davidson, and Starbucks command.

Pension Investments in Mutual Funds

At the end of 2003, retirement assets held in mutual funds (not including variable annuities) totaled about $2.7 trillion or 36 percent of total mutual fund assets (45 percent of long-term fund assets). These divided almost evenly into two major categories: individual retirement accounts (IRAs) and employer-sponsored defined contribution plans. Both types of retirement savings vehicles have made major contributions to the economics of the mutual fund industry throughout the period from the early 1980s through the first years of the twenty-first century.

Individual Retirement Accounts

The Employee Retirement Income Security Act of 1974 (ERISA) first gave individuals a way to make tax-deferred contributions to retirement savings, via what is now termed the "traditional" individual retirement account (IRA). The traditional IRA allows an annual tax-deferred contribution—currently a maximum of $3,000 ($3,500 for those 50 or older) for an individual and twice that for a married couple, subject to various limitations—and allows the account owner to defer taxes on all earnings from the account's investments. When the owner or beneficiary withdraws from the account, he or she pays ordinary income taxes on those distributions (and penalties on early withdrawals). Since 1974, legislation has created other flavors of IRA:

- *SEP IRA.* The simplified employee pension IRA, or SEP IRA, was created by the Revenue Act of 1978. Employers set up SEP IRAs for their employees, and (as of 2004) can generally contribute up to 25 percent of an employee's annual compensation to the account each year, to a maximum of $40,000. As the name implies, Congress intended this to be a simple vehicle for small employers to provide pension benefits.

- *SIMPLE IRA.* The SIMPLE IRA also provides small employers (no more than 100 employees) with a simplified approach to pension benefits. Employees can make annual contributions of up to $9,000 per year, and the employer must match this, subject to certain limits. The Small Business Job Protection Act of 1996 created the SIMPLE IRA.
- *Roth IRA.* The Taxpayer Relief Act of 1997 established the Roth IRA, which allows individuals to make annual contributions of up to $3,000, subject to limitations based on income and contributions to a traditional IRA. These Roth IRA contributions are not tax-deductible, but all earnings in a Roth IRA are tax-deferred.

The largest pool of assets by far is found in traditional IRAs—$1.137 trillion at the end of 2003.

During the 1990s and early 2000s, investors increasingly turned to mutual funds as an attractive vehicle for their IRAs.According to ICI data, in 1990, 22 percent of IRA assets were held in open-end funds. This climbed steadily until at the end of 2003, 43 percent of IRA assets were in mutual funds. After mutual funds, IRA investors were most likely to hold individual securities through brokerage accounts (37 percent of assets in 2003). The remaining IRA assets resided mostly in bank or thrift deposits and unregistered investment funds managed by banks or insurance companies.

IRA investing crosses the mutual fund distribution channels. Directly marketed funds, funds sold through both proprietary and nonproprietary brokers, bank funds, and insurance funds all offer IRA accounts. An IRA account holder must have a trustee to take charge of the assets and ensure that the activities of the account conform to the regulations. Trustees for IRA accounts may be and often are directly connected with the financial institution (bank, broker, mutual fund company) through which the IRA is offered. Most mutual fund companies offer an IRA account package that includes trustee services, in return for which they charge a small annual fee.

Defined Contribution Plans

The first corporate pension plans in the United States appeared in the 1870s, but it was not until the passage of ERISA in 1974 that the U.S. government became involved in corporate pensions in any major way. ERISA established an elaborate system of regulations covering virtually all pension plans offered by employers engaged in interstate commerce. In passing ERISA, Congress pursued three primary goals: to ensure that corporations funded their pension plans adequately; to create a guaranty corporation to protect employ-

ees when their pensions weren't adequately funded; and to increase benefits that employees actually received by encouraging greater participation and faster vesting.

ERISA was a complicated, far-reaching statute, and almost every year since its enactment Congress has passed some piece of benefits legislation to fine-tune or enhance its provisions. As it did so in 1978, Congress added paragraph (k) to Section 401 of the tax code, allowing employees to put certain money in an investment trust, and defer paying income tax on that money until they made withdrawals during their retirements. In 1980, when this change took effect, a benefits consultant named Ted Benna realized that the provisions of paragraph 401(k) could have much wider application than Congress originally intended.

Barron's describes what happened:

> *Toiling at a benefits consulting firm in Bucks County, Pennsylvania, in 1980, Benna had one of those Eureka! moments. He noticed an obscure change in a section of the tax code known as 401(k): As he interpreted it, money could be withdrawn on a pretax basis from paychecks and invested tax-deferred for employees until retirement. In 1982, persuaded by a pilot program run by Benna and his partners for their own staff, the IRS gave the green light for widespread use of 401(k)s.*[16]

U.S. corporations were quick to adopt the idea Benna had pioneered. Defined benefit plans, the common type of pension plan U.S. employers had offered to that point, make the employer fully responsible for providing the level of benefits to which the retired employee is entitled. The employer must bear the actuarial and investment risks involved in making sure that the plan has adequate funds to provide, by contrast, the pension benefits at these defined levels. Defined contribution (DC) plans, by contrast, shift these risks to the employee. The employer's only responsibilities are to provide the plan vehicle, contributions (at a defined level), an adequate set of investment choices to the plan participants, and administration services. The participant's pension benefit is simply the account balance that results from the accumulation of contributions and investment growth.

As the president of the Employee Benefit Research Institute put it, this combination—ERISA tightening the pension rules and 401(k) opening the door for tax-deferred contributions—"had the unintended consequence of freezing the defined benefit pension system and encouraging the massive growth of the defined contribution system."[17] The number of defined benefit plans in the United States peaked in 1983, when there were 175,000 plans. During the 1990s, the percentage of U.S. employees covered by defined

Table 10.2 Defined Contribution Plan Assets Held in Mutual Funds, by Type of Plan, 1990–2003 (Dollars in Billions)

Year	401(k)	403(b)	457	Other	Total
1990	35	n/a	2	15	52
1991	46	68	2	20	136
1992	82	74	3	25	184
1993	140	86	4	33	263
1994	184	90	6	35	315
1995	266	119	8	46	439
1996	350	148	11	60	569
1997	474	189	14	73	750
1998	618	231	20	87	956
1999	813	289	40	133	1,275
2000	819	264	38	127	1,248
2001	792	238	37	109	1,176
2002	697	200	31	105	1,033
2003	898	263	38	133	1,332

Source: Investment Company Institute, Strategic Insight

benefit plans declined steadily (from over 60 percent to below 50 percent) while the percentage covered by defined contribution plans increased (from below 50 percent to about 60 percent), according to the U.S. Department of Labor.

While 401(k) plans account for the major share of defined contribution plan assets, there are other types of DC plans. Nonprofit organizations such as colleges, hospitals, and churches set up plans in accordance with section 403(b) of the IRS code, and use that section's label as their own. Similarly, state and local governments may set up 457 plans. Finally, some DC plans do not meet the rules that 401(k), 403(b), and 457 plans must meet to qualify for tax-deferred status, and are termed nonqualified plans. Table 10.2 shows the mutual fund assets held in each type of plan since 1990.

Defined contribution plan regulations, features, and operations could form the subject of a book by themselves. This chapter will merely cover the high points to illustrate how defined contribution plans and participants interact with mutual funds. Figure 10.4 shows a simplified overview of the major players involved with a defined contribution plan, and the relationships among them.

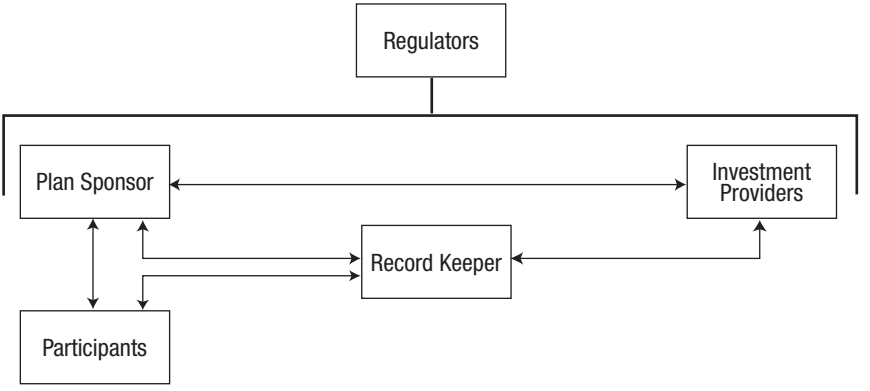
Plan sponsor. The employer, or plan sponsor, establishes a defined contribution plan as a benefit to its employees. The plan sponsor decides on the

particular rules the plan will follow—e.g., when an employee is eligible to participate, when vesting occurs, whether a participant can take loans from the plan, what investment choices the participants will have—and executes a plan definition document that embodies all these decisions. The plan sponsor typically provides at least some of the money contributed into the plan on behalf of the participants. (For example, many employers match employee contributions up to a specified limit, and some plans are funded exclusively via profit sharing.)

The plan sponsor also arranges for the administration of the plan. Some plan sponsors do this internally, as part of their human resources and finance functions. For example, Procter & Gamble, which has one of the nation's oldest profit-sharing defined contribution plans, did all administration internally until very recently. More commonly, plan sponsors contract with external organizations to handle plan administration because of the specialized operations and systems involved. Often, plan sponsors, especially smaller companies and nonprofit organizations, buy a package deal that includes a plan definition that meets all the regulations, an array of investment vehicles into which the participants can put their money, and a complete set of administration services.

Participant. Employees who meet plan eligibility requirements (typically, tenure in the employ of the sponsor and a threshold for number of hours worked per year) may choose to participate in a plan. In most defined contribution plans, the employees may elect to have some of their compensation deducted and used to contribute to the plan. If the plan qualifies under tax code rules [i.e., if it is a 401(k), 403(b), or 457 plan], then at least some of these contri-

Figure 10.4 Major players and relationships in defined contribution pensions.



butions may represent pretax money—that is, the participant can deduct them from his or her taxable income. Some plans allow participants to contribute after-tax money as well.

In a defined contribution plan, the participant usually controls how these contributions are invested, constrained only by the rules of the plan. Typically, a participant specifies a set of investment option elections that tell the administrator how to invest each contribution. (For example, a participant may elect to invest 50 percent of each contribution into the large-cap growth fund, 30 percent into the balanced fund, and 20 percent into the short-term bond fund.) Participants usually have the right to move their money from one investment vehicle to another, through an operation known as a transfer. Many plans allow a participant to take a loan against the plan balance, subject to limits on both the absolute size of the loan and its proportion of the total balance in the participant's account.

Record keeper. A defined contribution plan requires specialized processing and record keeping to maintain a complete and accurate account of each participant's share of the plan assets. The record keeper sets up an account for each participant in a plan, recording descriptive data about the participant (name, address, date of birth, etc.), as well as the participant's investment elections. As the plan sponsor sends contributions for the participants, the record keeper determines how these are to be invested, and makes and records each investment acquisition (for example, buying shares in a particular mutual fund). As the investments earn income (for example, as mutual funds pay dividends), the record keeper updates the participant's account accordingly. The record keeper also processes transactions the participant orders, such as transfers among investment choices, loans, and withdrawals.

Defined contribution participant record keeping is rendered especially complex by the need to track separately the assets derived from different sources of money. Sources of money include employee pretax contributions, employee after-tax contributions, employer contributions, and many more. The source of money from which a participant's plan assets were derived may affect vesting, loan eligibility, tax liability, and withdrawal procedures. Record keepers employ complex computer systems to process plan, participant, and investment activities and maintain the records of defined contribution plans.

Investment Provider. While many record keepers are also investment providers, the two functions can and often do come from separate organizations. Collectively, defined contribution plans invest in a wide range of different types of assets: The 1940 Act registered mutual funds, the stock of the plan sponsor's company, nonregistered investment pools (separate accounts),

guaranteed investment contracts, and individual securities selected by the participant (self-directed brokerage). At the end of 2003, 49 percent, or $1.4 trillion of the assets held by defined contribution plans were in registered mutual funds. These tend to be concentrated in the larger fund families. At the end of 2003, the ten management companies with the most fund assets held by defined contribution plans—Fidelity, Vanguard, American Funds, Putnam, T. Rowe Price, Janus, PIMCO, Franklin Templeton, Merrill Lynch, and Oppenheimer Funds—accounted for 95 percent of the total participants in a 2004 Strategic Insight survey.[18]

Regulators. A number of different federal agencies have regulatory responsibilities related to defined contribution plans. The primary regulator for the pension plans themselves is the U.S. Department of Labor, which is charged with overseeing the provisions of ERISA and subsequent regulation. Each plan must submit a series of reports to the DOL each year demonstrating its compliance with the regulations. A number of these report the results of tests that aim at ensuring the plan is not discriminatory in favor of officers, owners, or highly paid employees of the plan sponsor. The Internal Revenue Service has responsibility for the provisions of the tax code that allow qualified plans to have tax advantages. Mutual funds and other securities that provide investment vehicles are subject to the securities regulations that the SEC oversees. When plan assets are invested in bank trust funds, the Federal Reserve is the overseeing agency.

During the 1990s, defined contribution pension plans accounted for about $400 billion of net new cash flow into open end mutual funds. Defined contribution flows have also exerted a significant stabilizing influence on both the fund flows and asset levels of the industry. In its analysis of defined contribution plan activity in 2002, Strategic Insight concluded that DC investors, despite the bear market, both maintained their contribution levels, and refrained from significant transfer activity that would move money from mutual funds to other asset types.[19]

To attract this flow, fund companies have had to sell on two levels—the plan sponsor and the individual participant—and Goldman Sachs has popularized the term "instividual" to refer to this two-level market. To have any chance of attracting investments, the fund must first become part of the investment options for the plan. If the fund company is selling a bundled service (record keeping plus funds as investment choices), it must win the plan sponsor's business, usually in competition with other record keepers and investment providers. If the fund company is offering investments only (someone else does the record keeping), then it must get record keepers to include its funds among their offerings. Many plan sponsors engage specialized benefits

consultants to help them select plan options, investment vehicles, and service providers, and funds competing in this market must sell themselves to these consultants as well.

Once a fund is on the menu of investment choices for a plan, the next task is to get participants to select it. At one time, the large mutual fund companies offering bundled service could insist that only their mutual funds be included in the plan's investment choices. Until 1995, for example, Vanguard allowed plans for which it performed record keeping to choose mutual funds only from the Vanguard family. Competition in recent years has forced record keepers to accommodate a wider range of investment choices by plans, including funds from multiple complexes. For example, in 2000 the Delaware Group performed record keeping for the PricewaterhouseCoopers 401(k) plan, but the plan's investment options included funds managed by American Express, Neuberger Berman, Lazard, Northern Trust, and Brinson, in addition to Delaware. Each of these companies succeeds in gaining assets only to the extent that they convince participants in the plan to choose their funds over the alternatives.

Fund companies also try to market to individuals who leave their plans, which they often do, since the average American worker can expect to change employers ten times over his or her career. In fact, Congress originally enacted ERISA to address, among other things, the need for faster pension vesting for an increasingly mobile U.S. workforce. Many individuals take their defined contribution plan assets along with them when they leave an employer. The regulations allow an individual to roll his or her assets from the plan into another qualified plan, or into an IRA without incurring tax penalties. Participants may also choose to roll their account balances over to individual accounts when they retire. In recent years many mutual fund companies have instituted programs to try to induce participants leaving a plan for which they do the record keeping to roll the assets over into IRAs invested in their funds. Even so, the most successful providers still captured less than 50 percent of rollovers in 1999, and the average capture rate was no more than 25 percent.[20] According to a November 2003 study by Financial Research Corporation, 41 percent of rollover accounts worth $100,000 or more go to full-service brokerage firms, where they are generally allocated into separate accounts.[21] The challenge for fund companies is to convince investors that what were good investments for their accumulation phase will also be good for their retirement years.

Administering a defined contribution plan, particularly performing participant record keeping, costs a great deal, often more than can be recovered in administration fees. Mutual fund companies that perform defined contribution record keeping—Fidelity, Vanguard, Putnam, etc.—do so primarily to gather assets into the funds, not to make money on record keeping. A senior executive

for one such fund company stated it succinctly: "Our job is not to make money ourselves, but to bring assets to the funds. We succeed if we lose no more than 12 basis points annually on record keeping."[22] It is widely believed within the industry that this reflects a common situation, and that few record keepers break even on the record keeping fees they charge plans and participants.

The industry does a great deal of revenue sharing, a process through which investment managers cross-subsidize pension administrators in return for the assets they gather. For example, a fund manager trying to induce a third-party administrator (a firm that specializes in performing pension administration) to include its funds on the menu for plan sponsors might agree to pay 15 to 30 basis points per year on plan assets in the funds. The exact amount of this revenue sharing is difficult to determine—as FRC points out, most firms treat it as "a closely guarded secret!"[23] For the fund companies, this revenue sharing is effectively a marketing expense—money spent to attract assets to the funds that otherwise would not be there.

Throughout the 1990s and into the twenty-first century, mutual funds attracted an increasing share of defined contribution plan assets as both plan sponsors and participants sought name-brand investment management expertise and the high level of customer service that fund companies provide. Toward the end of the 1990s, some plan sponsors began to move away from retail mutual funds towards less expensive investment vehicles—institutional mutual funds, or separately managed accounts. This movement so far has been slight, and some informed industry observers argued that it would remain small in scale for two reasons. First, many participants prefer retail funds. Strategic Insight summarizes this outlook: "For most DC investors, the investment comfort generated by owning a brand name fund from Fidelity, Vanguard, or Merrill Lynch much outweighs the benefits of an unknown pooled account." Second, the need to cross-subsidize record keeping from investment management profits may limit the use of lower expense (and less profitable) separate accounts. It remains to be seen, however, whether plan sponsor and participant desires to lower the costs of their plans will have a significant impact on the level of defined contribution investing in mutual funds.

Retirement savings have had both direct and secondary effects on the mutual fund industry. They have channeled enormous amounts of money directly into thousands of mutual funds as individuals and plan participants selected those funds to be the investment vehicles for their IRAs or defined contribution plan accounts. Between 1990 and 2003, IRA and defined contribution plan investments accounted for just under 30 percent of the flow of new money into open-end funds. The over $2.7 trillion of retirement account assets held in mutual funds at the end of 2003 represents this direct effect.

Retirement investing, especially in defined contribution plans, has also helped introduce segments of the American population to mutual funds. As these investors learned about mutual funds through their retirement plans, many of them turned to this same vehicle for other investing needs. As Strategic Insight puts it, many investors whose retirement plans introduce them to mutual funds "broaden their use of mutual funds for retirement purposes within taxable accounts, respond to recent regulatory and tax changes by starting new investments for retirement, or open complementary accounts outside their retirement funding programs."[24] A rigorous study of 401(k) participants conducted by a Federal Reserve Bank researcher concluded that "participation in the 401(k) program increases awareness of retirement saving… [providing]… mild support for the idea that participation in the 401(k) program changes saving behavior."[25] This secondary effect defies precise measurement, but some percentage of the money currently invested in mutual funds is there only because investors learned about funds through their retirement plans.

Conclusions: The Role and Impact of Sales and Marketing Activities

In 1999, Financial Research Corporation (FRC) and PricewaterhouseCoopers undertook a study of marketing activities in the mutual fund industry. They gathered survey data on marketing costs from 24 fund companies that collectively managed about 20 percent of the industry's 1998 assets. During that year, the firms included in the survey spent a total of just over $1 billion on sales and marketing activity, or, on an asset-weighted basis, about 10.3 basis points on average assets for the year. Table 10.3 shows how this expenditure breaks down into specific categories. Extrapolating these rates to the industry as a whole would suggest that the industry's expenditures on sales and marketing activities in 1998 totaled just over $5 billion.

Such an extrapolation must be viewed only as a crude indicator of the magnitude of industry-wide expenditures. The firms in the survey were not selected on the basis of any random sampling technique. These firms self-reported their marketing expenditures, and nothing guarantees that the different firms adhered to a common standard of measurement. Thus, as FRC clearly points out in its report of the study, any insights developed from the data "should be regarded as an indication of where the industry is and not as statistically proven."[26]

Despite the imprecision of its data, the survey nevertheless strongly suggests that the mutual fund industry spends a significant sum—on the order of several billion dollars per year—on sales and marketing. (Counting the

Table 10.3 Estimates of Mutual Fund Industry Spending in 1998 on Sales and Marketing Activity

Expense Category	Asset-weighted average cost to average assets under management (basis points)	Extrapolation to overall industry expenditures based on average assets in 1998 (billions)*
Salaries	2.3	$1.15
Incentives	0.9	$0.43
Commissions	1.5	$0.76
Other Staff-Related Costs	0.9	$0.46
Advertising and Media Placement	1.2	$0.61
Collateral Materials and Fulfillment	1.0	$0.51
Public Relations	0.1	$0.06
Other Sales and Marketing Expense†	2.3	$1.17
TOTAL	10.3	$5.14

Source: FRC/PwC 1999 Study of Mutual Fund Distribution Costs and Strategy

*Based on average industry assets of $5 trillion in 1998.

†Other sales and marketing expenses include miscellaneous expenses such as licensing fees, printing and promotion, postage, miscellaneous wholesaler costs, information services, communications research, occupancy, external consulting, and miscellaneous marketing expenses

revenue used to cross-subsidize defined contribution record keepers would add to this number.) Most of this represents money paid out of the fee revenues earned by the fund management companies and distributors. It does not include the commissions paid directly from investor assets to brokers and other intermediaries for the role they play in selling funds. Two questions about these marketing expenditures form the focus for continuing discussion and debate in the industry.

Is This Expenditure Warranted?

Belief about the appropriateness of mutual fund marketing follows from a philosophical view of the true nature of the industry. Goldman Sachs & Company, in its influential 1995 report on the mutual fund industry, identified the opposing positions when it asserted that "Managing money is not the true business of the money management industry. Rather, it is gathering and retaining assets."[27] Most of the operatives in the industry share this latter view, at least implicitly. Firms manage mutual funds, they hold, to make a profit. Making a profit requires generating revenue, and assets under management form the source of all revenues. To gather and retain assets to manage, fund companies engage in marketing activities. In this respect, they argue, mutual fund management companies

resemble all other for-profit enterprises that sell products to consumers.

It is this notion of mutual funds as consumer products that troubles subscribers to the opposing school of thought, who believe that the true business of the industry is to provide a professional service—to manage money as a fiduciary. Professor Tamar Frankel, author of a treatise on mutual fund law, typifies this view: "Selling funds as products fosters a 'buyer beware' mentality more suitable for tangible products whose performance is immediately apparent than it is for an ongoing relationship of trust between a money manager and an investor."[28] Aggressive marketing, especially advertising, is as inappropriate to this relationship as it is to the physician-patient relationship.

John Bogle, not surprisingly, is a leading spokesman for this point of view. In one of his books, he clearly articulates the problems that members of this school of thought see in mutual fund marketing:

> *First, it costs mutual fund shareholders a great deal of money—billions of dollars of extra fund expenses—which reduces the returns received by shareholders. Second, these large expenditures not only offer no countervailing benefit in terms of shareholder returns, but, to the extent they succeed in bringing additional assets into the funds, have a powerful tendency to further reduce fund returns. Third, mutual funds are too often hyped and hawked, and trusting investors may be imperiled by the risks assumed by, and deluded about the potential returns of, the funds. Lastly, and perhaps most significantly of all, the distribution drive alters the relationship between investors and funds…the mutual fund is no longer primarily an investment account under the stewardship of a professional manager, but an investment product under the control of a professional marketer.*[29]

Bogle has made this philosophy concrete in the form of The Vanguard Group, Inc., a fund-owned management company designed to not make a profit. This approach remains distinctly in the minority, however. Most mutual funds are managed by profit-seeking enterprises that consider it perfectly appropriate to engage in marketing activities to increase revenue and profit. For these firms, the real questions about the propriety of marketing activities revolve not around whether they should be undertaken, but around the details of marketing practices —advertising content, commission levels, sales tactics, and so on.

This argument has recently intensified in light of the regulatory scrutiny focused on the industry's revenue sharing practices. Both the New York Attorney General's office and the SEC found cases in which they alleged that fund companies and brokers allowed revenue generation and sharing to motivate behavior counter to investor interests. Specifically, fund companies compen-

sated brokers for "shelf space," that is, for including the companies' funds in their array of offerings. This marketing practice is not, in and of itself, necessarily bad. It becomes a problem when brokers recommend funds to their clients because of the revenue-sharing compensation they receive rather than because of the match between a fund and the client's needs. At this writing, the extent to which revenue sharing has been abused is still being investigated.

Is This Expenditure Effective?

Assuming that marketing efforts are appropriate, the question remains as to what they actually achieve. Flows of new money into mutual funds closely correlate to fund performance, especially risk-adjusted performance as measured by Morningstar or similar ratings. Anecdotal evidence on what explicit marketing achieves is mixed. In 1999, for example, a market research firm surveyed the impact of 22 mutual fund ad campaigns on 1,000 respondents. They found that only 13 percent even remembered the ads, and those who did were not impressed. The president of FRC, commenting on this study, termed most mutual fund advertising "stilted" and a "waste of money."[30] On the other hand, when Alliance Capital Management achieved strong sales flow in 1999, firm officials attributed at least part of their success to marketing, including a television advertising campaign.[31] And when Scudder, Stevens & Clark sought a suitor to buy it out in 1997, after years of eroding market share, its problems were attributed to "marketing and management missteps."[32] Examples and counter-examples of the effectiveness (or lack thereof) of fund marketing abound. As is the case in most contexts, anecdotal evidence supports both sides of the question.

The FRC/PricewaterhouseCoopers study of mutual fund sales and marketing attempted to address this question more systematically. Analyzing data for 1998, the researchers found that the total expenditures on sales and marketing explained 32 percent of the variability in gross sales for the firms in the study. (Of course, this analysis also labored under the imprecision of the respondents' self-reported data on marketing expenditures.) They concluded from this that marketing can and does have an impact: "Although performance is still the key factor in gross sales, a firm's commitment to sales and marketing can make a difference in a highly competitive industry."[33]

Correlation does not prove causality, however. The data could reflect fund companies spending more on sales and marketing in response to increased sales that gave them more discretionary funds. FRC has noted in the past that fund groups move advertising expenditures up or down based on what sales were the year before, cutting ad budgets when sales go down, and increasing the budget when sales go up.[34] No significant relationship can be found

between flows and current and prior period advertising, or between advertising and current and prior period flows.

At least one academic study suggests that advertising, especially performance-related advertising, does in fact have an effect on investors. Barber, Odean, and Zheng (2003)[35] examine what information mutual fund investors use when making purchase decisions, with a particular emphasis on how they deal with fee and expense information. The researchers conclude that while investors notice salient, attention-grabbing information on costs, specifically front-end loads, they are less sensitive to operating expenses, which are harder to discern. Instead, they shift their focus to information that marketing efforts, particularly advertising, can deliver—particularly, reports of good fund performance. The researchers conclude that they have found evidence that mutual fund marketing does work, but the magnitude of the effect remains open to question.

Discussions of mutual fund marketing often cite industry maturity as a driver for greater emphasis on sales and marketing activities. As the industry matures, many say, a large number of competitors fight over an increasingly saturated market. Achieving competitive advantage through product differentiation becomes more and more difficult, as multiple funds occupy every niche. Certainly performance sells, but depending on superior performance is a two-edged sword—money that flows to a fund when it is hot is likely to flow right back out as soon as the fund's performance cools. Fund companies seek ways to attract assets and retain them across performance peaks and valleys, a goal that seems well-suited to advertising aimed at brand-building.

chapter 11 | The Transfer Agent, Part 1—Shareholder Record Keeping

Most investors don't know what a transfer agent is; listed way back in the semiannual report, they remain anonymous so long as they do their jobs well…they are necessary to operations but too dull to worry about.

—Charles A. Jaffe (1996)[1]

Every security requires a transfer agent—an organization to keep track of who owns the stock, to pay the owners dividends (or interest) when appropriate, to send required materials (such as annual reports to the shareholders), and to transfer ownership when the security is bought and sold. Organizations that perform these functions for typical companies—Wal-Mart, Microsoft, Coca-Cola—are called stock transfer agents. (Some big companies do their own transfer agent work, but most farm this function out to third parties, often banks.) Some companies also use their transfer agents to implement dividend reinvestment and stock purchase programs (DRIPS and DRSPPS), through which shareholders can buy more shares without paying a commission. That about sums it up, however, for stock transfer agent functions.

Mutual funds also use transfer agents to perform these basic functions for their shareholders. But mutual fund transfer agents do much, much more. Over the past 25 years, competition in the industry has spurred mutual fund companies to evolve a rich set of options to offer shareholders options that go far beyond simply tracking ownership and sending dividends and reports. Shareholders can purchase shares in a wide variety of ways; they can set up automatic programs to both purchase and to liquidate shares or exchange them into other funds; they can accrue income daily, and get it paid out in multiple forms and via multiple delivery methods; they can have reports of their holdings and activities presented in various formats via various media, to themselves and to interested

parties. Funds also have evolved a complex set of methods for compensating their distribution agents—front-end loads, contingent deferred sales charges, finder's fees, trail commissions, service fees. All of these functions, and more, are implemented by the transfer agent.

Who the Transfer Agents Are

The Securities Exchange Act of 1934 gave the SEC the authority to register and regulate transfer agents, as part of its mandate to ensure the prompt and accurate clearance and settlement of securities transactions. In early 2004, about 2,000 transfer agents, mostly stock transfer agents, had registered with the SEC (or, if they were banks, with the Federal Reserve Board). A subset of these focused on mutual funds. In the early days of the mutual fund industry, banks that had developed stock transfer capabilities merely broadened them slightly to accommodate the new mutual funds. As mutual fund processing became more complex, a handful of these organizations evolved along with the industry to specialize in the unique needs of open-end funds.

As of early 2003, twenty-five companies competed in the full-service third-party transfer agent business in the United States—that is, they provided the complete range of transfer agent functions for mutual fund companies.[2] The 14 companies shown in Table 11.1 processed over 72 million shareholder accounts, or about 12 percent of the total accounts open at the time. Transfer agents internal to the mutual fund management companies either directly or through the use of remote service providers handled the remaining 88 percent. The full-service providers had been consolidating for some time, and the consolidation continued in 1999, when PFPC acquired First Data's mutual fund processing business to challenge and ultimately overtake the DST complex for first place in the number of full-service accounts processed.

From the 1980s through the early 2000s a number of the larger mutual fund companies moved their transfer agent functions from third-party providers to internal organizations, to reduce costs and improve customer service. However, as a result of consolidation in the mutual fund industry, a number of the larger mutual fund companies have moved many functions to outside providers (see the boxed section "Transfer Agent Profile: Liberty Investor Services Company" in this chapter). Today, smaller fund companies tend to use outside service providers, and larger companies tend to do all or most of their transfer agent processing internally. In many cases, the funds split transfer agent and shareholder servicing functions, using external agents to perform the back-office processing (discussed in this chapter) while handling telephone, mail, and e-mail interactions with their clients themselves.

Table 11.1 Full Service Only Transfer Agent Service Providers as of 2003

Provider	Number of Fund Groups Serviced	Number of Shareholder Accounts Serviced
PFPC	135	31,650,000
DST/BFDS COMPLEX	121	19,700,000
Mutual Funds Service Co.	2	8,100,000
DST Systems	20	6,500,000
BYSYS	73	2,074,000
U.S. Bancorp Fund Services	107	2,000,000
JPMorgan Chase Bank	47	1,467,000
UMB Investment Services	16	216,000
Integrated Fund Services	11	209,000
Citigroup Global Transaction Services	35	182,000
Unified Fund Services	31	127,000
Citco Mutual Fund Services	10	50,000
Ultimus Fund Solutions	18	41,000
ALPS Mutual Funds Services	8	34,000
Investors Bank	36	31,000

Source: 2004 *Mutual Fund Service Guides*, Thomson Media, 2004

What Transfer Agent Service Costs

Transfer agent service is typically the largest component of a fund's expense, after investment management. The ICI has commissioned studies of transfer agent fees, and Table 11.2 shows a summary of per-account charges and trends through the 2000s. These surveys have found that transfer agent costs have remained essentially flat, despite increasing pressure on fund groups to expand the services the transfer agent provides.

Recently, Strategic Insight found that annual transfer agent expenses ranged from below $20 per shareholder account to over $100 per account.[3]

Table 11.2 Average Per-Account Charges for Transfer Agent Service

Account Base	1993	1995	1997	1999	2001
Open Only	$25.92	$25.09	$24.87	$25.76	$24.58
All Accounts	$22.77	$20.93	$20.50	$21.46	$20.36

Source: ICI, Mutual Fund Transfer Agent Fee Survey, 2001 Preliminary Survey Results.

Tough Business to Break Into: The Saga of AT&T American Transtech

In 1988, AT&T thought it saw an opportunity to share in the explosive growth of the mutual fund industry by exploiting its established proficiency as a stock transfer agent to become a mutual fund transfer agent. In 1983, AT&T had spun off its internal stock transfer agent to form a subsidiary, American Transtech. By 1988, American Transtech managed the largest shareowner account base in the stock transfer industry, employing a staff of 2,500 in its Jacksonville, Florida, facility. Mutual fund transfer agent service looked like a natural next step, and the Bank of New York (BoNY) seemed to be offering a perfect opportunity to break into that market.

BoNY, then the second-largest third-party transfer agent service provider in the United States, had looked hard in 1987 at what they would have to spend on a new system to stay competitive, and had decided it was too much. Transtech, however, thought it had already found the transfer agent system of the future—the Multiple Asset System (MAS), which it got when it bought a small development company called AIS. Transtech's CEO thought it all fit perfectly—"the acquisition of AIS, a leader in mutual funds transfer technology, allows us to expand our already formidable line of financial information services. It is a perfect complement to our existing strengths."[4] So, in May 1989, Transtech bought BoNY's transfer agent processing business.

But Transtech couldn't actually buy the customers. The success of the deal for Transtech hinged on their ability to convince BoNY's mutual fund customers to sign up with them as BoNY's designated successor, rather than switching to another provider altogether. Doing this was not a foregone conclusion. Since the funds had to undergo a system conversion (always a nasty prospect) even if they went with Transtech, they might look around for a better deal while they were about it.

Unfortunately, Transtech found that MAS couldn't be made ready to handle a big fund group until late 1990, and this opened the door for competitors who could move more quickly. In November 1989, BoNY's largest client by far, The Dreyfus Funds, announced that they would switch their transfer agent business to The Shareholder Services Group (TSSG). TSSG, an established mutual fund transfer agent, could get Dreyfus up and running six months earlier than Transtech.

Transtech ended up getting a handful of small funds with fewer than 30,000 accounts from the BoNY book of business, far too few to be economical. In 1991, having lost any hope of success in the highly competitive mutual fund transfer agent service market, Transtech quietly sold both MAS and its mutual fund book of business to Kemper Service Corporation of Kansas City, and exited the industry.

Table 11.3 shows the median per-account annual expense for transfer agent-services, for a selection of fund types and distribution channels. As this shows, the major source of variation is the distribution channel, since transfer agents perform different functions according to the fund's distribution method. (Brokers often perform much of the shareholder reporting functions for funds

Table 11.3 Median Transfer Agent Expense (in $ per Shareholder Account per Year) for Selected Fund Categories and Selected Channels, for 2003)

Type of Fund	Direct	Broker Dealer Nonproprietary	Broker Dealer Proprietary	Institutional
Equity—Capital Appreciation	$44.42	$30.66	$15.41	$28.49
Equity—International/Global	$28.70	$29.72	$17.02	$30.93
Fixed Income—Government-Backed	$38.39	$35.29	$18.46	$32.50
Fixed Income—Corporate High-Yield	$44.67	$31.29	$23.71	$33.57
Money Market—General	$38.62	$41.65	$17.29	$68.23

Source: Strategic Insight Simfund

they distribute, for example.) Other sources of variation include such factors as the nature of the fund (e.g., how often it pays dividends), the options and services offered to the shareholders (e.g., what automated exchange programs they get), and the economies of scale inherent in the size of the shareholder base. By way of comparison, the typical shareholder account valued at $20,000 might incur between $40 and $200 per year in fees to pay the investment advisor, depending on the type of fund.

What Transfer Agents Do

What do the shareholders get for the $20 to $40 per year most of them pay for the transfer agent? In a nutshell, the transfer agent handles all aspects of their interactions with the funds. The transfer agent maintains their account records; processes their trades into and out of the fund; pays them their dividends and capital gains distributions; sends them various documents, such as confirmations, statements, and tax forms; and pays the intermediaries they use, such as brokers. All of these activities comprise the transfer agent back-office functions.

When a shareholder purchases into a fund via an intermediary such as a supermarket or broker, he or she may see the intermediary performing some or even all of the functions described in this chapter as transfer agent functions. In these cases, the transfer agent interacts with the intermediary who acts on behalf of the shareholder.

Setting Up and Maintaining Shareholder Accounts

To purchase shares in a fund, an investor must establish an account with the fund's transfer agent. The investor does this by filling out an account application, such as the Fidelity Funds example shown at the end of this chapter (see

Figure 11.1, page 255). Typically, the investor sends this application along with the money for the initial purchase into the fund, either directly to the transfer agent or via an intermediary. The application captures several important types of information that the transfer agent uses to set up the account record for the investor:

- *Information about the owner*. The account registration is the legal description of the ownership of the account. The registration can be simple (e.g., "John Smith") or complex (e.g., "John A. and Jane B. Smith, custodians for Susan C. Smith under the Massachusetts Uniform Transfer to Minors Act"), depending on the type of account. Along with the registration, the investor specifies the address of registration and the owner's tax status and identification (typically, the social security number).
- *Account type*. Common types include individual/joint (an individual investor or investors, nonretirement), custodial (usually parents for their children), trust (most often for Individual Retirement Accounts, or IRAs), and various types of institutional accounts (corporations, foundations and endowments, retirement plans). The account type affects the tax status of the account and what options it may exercise.
- *Related party information*. The investor may specify the name and address of various parties that play a role in the account. Examples include recipients for duplicate statements (such as a financial advisor or accountant), recipients of cash (from dividend or systematic withdrawal payments), and beneficiaries (on retirement accounts).
- *Option choices*. Every shareholder must choose how he or she wants to receive dividends and capital gains distributions—in cash or as reinvestments in the fund. (Two-thirds of American shareholders reinvest all such distributions.) Most funds offer many more service choices as well, including such things as:
  - automatic investment plans
  - systematic withdrawal plans
  - check-writing privileges
  - asset allocation programs
  - consolidation of accounts for statements and other reporting
  - Internet access to account information
  - automatic use of dividends or gains from one fund to purchase into another fund
- *Commission reduction information*. Many load funds give investors discounts on the commissions they pay when their investments reach certain threshold values, called breakpoints. For example, a fund may charge 4 percent on purchases up to $50,000; 3.5 percent on purchases from

Omnibus Accounts

When an investor purchases a mutual fund through Schwab's mutual fund marketplace, the fund's transfer agent never knows who that investor is. Schwab, like many intermediaries, sets up only a single account, an omnibus account, at the mutual fund's transfer agent to handle the holdings of all the investors who hold that fund through Schwab. Each day Schwab rolls up all the trades individual investors make buying and selling shares in the fund, and places a few aggregate trades with the fund's transfer agent.

Of course, this means that Schwab must handle many investor servicing functions that the fund's transfer agent would otherwise perform, such as calculating and paying dividends and capital gains, keeping track of the tax cost basis of the investor's holdings, issuing tax forms, and answering shareholder questions. This processing costs money, and part of the fee that Schwab assesses the funds for selling their shares through its mutual fund marketplace goes to cover the subaccounting that Schwab does. Brokers find omnibus accounts attractive in part because they allow the broker to maintain control over the shareholder account—a shareholder cannot contact the fund directly to redeem shares, for example, because the transfer agent has no record of the individual shareholder.

In addition to brokers, defined contribution plan [e.g., 401(k)] record keepers also often keep omnibus accounts at the fund's transfer agent. These accounts represent the total holdings in the fund for all the participants in a particular pension plan, or even for all the participants in all the plans the record keeper handles.

In response to recent market-timing concerns, the SEC has recently issued new regulations which, for the first time, will require all intermediaries that maintain omnibus accounts to provide at least some information to mutual fund groups about the individual invesors compromising the account. Specifically, in order to permit funds to identify market-timing activity that may span across multiple intermediaries, new Rule 22c-2 under the 1940 Act wil require intermediaries to provide, upon request, the taxpayer identifcation numbers (e.g., Social Security numbers) of all shareholders transacting through the intermediary with the fund, as well as the amounts and dates of the transactions. Additionally, the intermediaries will be required to restrict any transaction activity from a shareholder identified by the fund as having violated the fund's market-timing policies. These new regulations will not go into effect until late 2006, and could even be extended as the SEC has further amendments under consideration. Nonetheless, these new regulations will represent a significant change from the historical practice of complete nondisclosure by intermediaries to the fund of shareholder identities.

$50,000 to $100,000, and so on. Investors may be able to link accounts in other funds in the family to qualify for the discount, a practice called rights of accumulation (ROA). They may also make a declaration that they will put enough money into the fund within a specified period (typically 13 months) to earn a discount. This is termed a letter of intent (LOI).

The transfer agent sets up the shareholder's records in its computer system when it receives the completed application, and makes changes to those records when the shareholder (or authorized intermediary) requests. These records control how transactions for the account are subsequently processed and reported. The typical transfer agent has a department that specializes in account set up and maintenance. Some trust and custodial accounts can be quite complex, as can the interactions between account types and account options.

Transaction Processing

Every fund's prospectus contains language similar to this statement from American Century: "We will price your purchase, exchange, or redemption at the NAV next determined after we receive your transaction request in good order."[5] (For load funds, the price is based on the NAV adjusted for a commission.) In other words, open-end mutual funds all employ forward pricing. In order to ensure that existing and remaining shareholders in the fund are protected, shareholders entering and leaving do so at a price struck after they have committed their trade order. This ensures that the shareholders entering, the shareholders leaving, and the shareholders remaining in the fund all receive or hold shares of equal value.

Without forward pricing, the fund and its shareholders would be vulnerable to dilution of value through arbitrage. For example, assume that an investor could buy into the fund at the price struck yesterday. In a rising market for the fund's underlying securities, the investor (arbitrageur) could note that these rising security prices had driven the fund's current value higher than its current price. If he or she could buy these undervalued shares, he or she would be effectively taking some of the appreciation in value away from existing shareholders. Forward pricing precludes this abuse.

Transfer agents collect unpriced transactions all day, and process them to completion each night after the day's NAV has been determined. These transactions flow in via mail, telephone, the Internet, and numerous electronic transmissions from intermediaries of various sorts. An investor must commit his or her transaction by a stated cut-off time (typically 4:00 PM in New York, when the New York Stock Exchange closes) to get the price for that day.

- *Purchase and sale transactions.* Purchase trades, sometimes called subscriptions, occur when an investor decides to put his or her money into the fund. Sales, also called redemptions or liquidations, occur when the shareholder decides to convert his or her holdings back to cash. In either case, the transfer agent determines the appropriate price for the trade, cal-

culates the number of shares purchased or sold, and records the transaction in the shareholder's records. The price for a purchase depends on the NAV applicable to the trade and, for load funds, the sales commission the investor incurs. Redemption transactions are always priced at NAV, but in some cases (discussed below), a commission or fee may be deducted from the shareholder's proceeds.

Purchase and sale orders can come to the transfer agent via many methods. Some of the commonly encountered ones include:

- *Mail*. Purchase trades may come to the transfer agent via the mail—the shareholder sends a check along with an application for a new account or an indication that he or she wants to add money to an existing account. Shareholders can also order redemptions by mail.
- *Telephone*. Shareholders usually can telephone their requests for liquidation transactions. A few funds do not take telephone requests, usually to discourage short-term investors who might try to move in and out of the fund as part of a market timing strategy.
- *Electronic transmission*. Transfer agents for broker-distributed funds receive the bulk of their purchase and redemption trades via electronic transmission from the brokers, who have taken the orders from their clients. Other intermediaries such as bank trust departments or fund supermarkets may transmit purchase and sale orders to no-load fund transfer agents as well.
- *Pre-authorized draft*. Funds may have catchy names for these programs, such as "Fundamatic" or "Investamatic," but whatever the name, they all allow the investor to set up standing orders for the transfer agent to debit their bank accounts on a periodic basis (say, monthly) to purchase mutual fund shares. Typically the transfer agent uses the Automated Clearing House (ACH) network to get the investor's money. For example, an investor might supplement her retirement savings program by having $500 automatically taken from her checking account each month to purchase shares in a fund.
- *Systematic withdrawal plan* (SWP). Most fund groups allow investors to set up standing orders to redeem shares on a periodic basis. The transfer agent generates redemption trades based on these instructions, which specify the amount to sell (typically a dollar amount, a share amount, or a percentage of the account balance), and the recipient(s) of the proceeds. For example, an investor might set up a SWP that has $1,000 worth of shares redeemed each month, with $500 of the proceeds being sent via ACH to his son in college, and the other half via check to his daughter in the Peace Corps.

The Regulations on Pricing Mutual Fund Transactions

Section 22 of the Investment Company Act of 1940 dealt with pricing mutual fund shares for either purchase or redemption. The section stated that shares can only be sold "at a current public offering price described in the prospectus." It further stated that the price had to be related to the current net asset value, and that the price might include a commission amount, as long as it was not "excessive." The Act did not, however, prescribe exactly how and when the NAV would be calculated.

In 1968, the SEC found that the 1940 Act's specification for pricing had left a loophole that needed to be closed. A number of funds at that time were pricing their shares then based on the last NAV that had been determined—backward pricing, in other words. As then SEC official Barry Barbash described it,

> *In the rising markets of the 1960s, backward pricing was often cited by aggressive brokers in seeking to convince potential investors that, by acting quickly, they could purchase fund shares at bargain basement prices that soon would disappear. Backward pricing also led some investors in the 1960s to become speculators in fund shares. A strategy used by some investors at the time was to arbitrage fund shares by purchasing a large block of shares during a rising market, and then quickly selling the shares after the fund's assets were revalued to reflect the market rise. This speculative practice, in addition to causing dilution of a fund's existing shareholders, often interfered with the ability of the fund's advisor to manage the fund effectively.*[6]

As a result, in 1968 the SEC adopted Rule 22c-1 under the 1940 Act to preclude this abuse. Rule 22c-1 requires funds to base all purchase and sale transaction prices on "the current net asset value…which is next computed after receipt of a tender…" Ever since, all U.S. mutual funds have been required to use forward pricing. However, in 2003 the attorney general of the State of New York brought a complaint against a number of fund groups alleging that they were allowing "late trading" and "market timing." Late trading is allowing certain investors to purchase shares of a fund *after* the NAV had been determined (4 PM) but at that day's price as opposed to the next day's price as required by Rule 22c-1. The complaint states that "late trading can be analogized to betting today on yesterday's horse race."[7] As a result, a number of fund groups were required to reimburse certain funds for losses attributed to late trading activities.

Market timing is a technique that involves relatively short-term trading of mutual fund shares (purchases and subsequent, successive redemptions, or exchanges). A timing technique, known as "time zone arbitrage" appears to be one of the more common techniques. The Asian-Pacific markets close 12 to 14 hours before the 4 PM New York close. If these closing prices are used in determining the NAV at the 4 PM New York close and there has been significant information or market moves while the U.S. markets are open—which might cause the Asian-Pacific markets to rise or fall during the next trading day—a timer who purchases (or redeems) shares is almost assured of a short-term profit (or avoidance of a loss). Most mutual fund prospectuses include statements that indicate they discourage frequent, excessive trading or exchanges and may reject any purchase orders that they believe are attributable to market timers.

As a result of the complaint many transfer agents have enhanced systems, policies, and procedures to identify both late trading and market timers; many funds have adopted redemption fee policies that impose a redemption fee on short-term trades. The SEC, in fact, has recently adapted a rule requiring mutual funds to at least consider whether a redemption fee is necessary to protect shareholders from short-term trading.

- *Internet.* Many fund groups allow investors to order redemption and exchange trades over the Internet. They sometimes allow purchases, if the investor can authorize a flow of funds from a bank account.
- *Voice response unit* (VRU). All fund groups provide VRU (sometimes referred to as IVR, or interactive voice response) access to their shareholders. Among the many functions most VRUs offer is the capability to order redemptions.
- *Check writing*. Almost all money market and some other fixed income funds feature check-writing provisions. The shareholder is given a checkbook, and writing a check effectively orders a dollar-denominated redemption transaction. The clearing bank sends the transfer agent a file each day with the information about these checks, and the transfer agent generates redemption transactions accordingly.
- *Automated teller machine*. Funds associated with banks often give shareholders access to their accounts via the bank's ATM network. The investor can move money from his or her checking or savings account to a fund (purchase), or vice-versa (redemption).

This list cannot be exhaustive. Between the time this is written and the time it is read, some innovative transfer agents will have devised new methods for investors to move their money into and out of their funds.

- *Exchanges.* An exchange pairs one or more redemption transactions with one or more purchase transactions to move a shareholder's money from fund to fund. Many shareholders find it desirable at some point to make adjustments in the way their money is invested. For example, a person approaching retirement may move some capital from equity fund holdings to fixed income funds, as controlling risk becomes more important. Other shareholders move money from fund to fund in hopes of increasing their returns by timing the market. (Many funds charge fees to discourage excessive use of exchanges for market timing.) Whatever the reason, the exchange is the transaction through which a shareholder moves money from one fund in a family to another.

  Since exchanges involve no flow of cash to or from the shareholder, investors can order them through many different mechanisms: mail, tele-

Transfer Agent Profile: DST

DST is the largest of the third-party transfer agent service providers (full and remote service combined) and, by mutual fund industry standards, an old-timer as well. It started in the early 1960s as an internal department of Kansas City Southern Industries, a railroad that had acquired mutual funds as part of its diversification program. In 1968, KCSI incorporated DST, aiming to use the system and capabilities it had developed internally to generate revenue by servicing other mutual funds. When the industry took off in the early 1980s, DST was perfectly positioned to attract fund complexes looking for transfer agent service. By 1986, it had become the largest mutual fund transfer agent in the United States, a position it retains through 2005. As one industry research group noted in 1997, DST had a remarkably stable customer base, having lost only two major clients in the previous ten years, one to an internalization, and one in the wake of an acquisition.[8]

At the end of 2004, DST provided some aspect of the transfer agent service for nearly 100 million mutual fund shareholder accounts. For 26 million of these, DST—internally or through its joint venture with State Street Bank (Boston Financial Data Services)—performed transfer agent processing. For the remainder, DST provided its transfer agent systems,for use by the transfer agent who handled the accounts.

In recent years, DST has extended its reach to foreign mutual fund shareholder processing, establishing International Financial Data Services (also a joint venture with StateStreet Bank). DST also owns subsidiaries that provide related functions, such as DST Output, a print-mail company that serves many of DST's mutual fund clients.

When DST takes prospective clients on a tour of its facilities, it offers one item that is unique in the industry. DST houses its data center in a limestone cave, originally developed by the military, located a few miles from the center of Kansas City. It also keeps two enormous generators mounted on shock absorbers in the cave, so that the computers can keep running without missing a beat even if all the external power fails. In an industry in which reliability is so important, the image of this massive data center securely nestled in the protection of the cave has served DST well as a marketing point.

phone, VRU, Internet, ATM, anything that can be used to communicate with the transfer agent.

When the transfer agent processes the transaction, however, money actually flows from fund to fund, and the redemption side of the exchange creates a taxable event for the shareholder.

- *Transfers.* Transfers change ownership of holdings within a fund. Shareholders use transfers most often to effect changes in the registration for holdings. For example, a parent may wish to make a gift by transferring shares to a child's account. Transfers are also used when a shareholder wants to change his or her account registration so significantly that the transfer agent must set up a new account (as, for example, when the trustee

on the account changes). The transfer agent then uses a transfer transaction to move the holdings from the old account to the new one. Transfers involve no flow of money and do not affect the fund's balance at all—they merely change the ownership of some of the fund's shares from one shareholder account to another.

- *Other transactions.* Funds sometimes assess fees against their shareholders that they collect via share redemption transactions. For example, some fund groups charge Individual Retirement Account (IRA) shareholders a small annual fee for serving as trustee for the account. If the shareholder does not pay this fee in another way, the transfer agent redeems enough shares to cover the fee amount.

Most shareholders today hold their shares in book entry form—that is, the shares exist only in the form of records on the transfer agent's computer system. A small, and declining, percentage of mutual fund shares are still represented by physical certificates, however. Transfer agents must process deposit transactions to convert a certificate's shares to book entry form (typically so they can be redeemed or exchanged). Conversely, when the (now relatively rare) occasion calls for creation of a certificate, the transfer agent must be able to process a transaction to issue one. Issue and deposit transactions have no effect on the value or amount of a shareholder's holdings.

Transfer agents use adjustment transactions to make changes in a shareholder's account balances, typically to correct mistakes. For example, if the transfer agent processed a purchase trade to the wrong fund (perhaps because the shareholder's letter was ambiguous) and corrected the mistake by entering the trade to the correct fund five days later, the shareholder might have missed a dividend on the purchased shares. In this case, the transfer agent could make the shareholder whole by processing an adjustment transaction. The adjustment would give the shareholder the amount of shares that would have come from the reinvested dividend had the trade been processed correctly from the first. Every transfer agent seeks to reduce the need for adjustments as much as possible.

Finally, to correct mistakes, the transfer agent must be able to reverse any transaction it processes. In the case mentioned above, when the transfer agent learned of the mistake (probably when the shareholder or broker called), it would enter a reversal transaction that undid everything the first and erroneous purchase transaction had done. The transfer agent would then enter the correct transaction, making it effective as of the date it should have been processed in the first place.

Trades like this, which force the use of some prior date's price, are called as-of trades. As-of trades can cause losses. Assume, for example,

Cross-Fund Family Exchanges

To complete an exchange transaction, the transfer agent must first determine the net proceeds resulting from the redemption side of the transaction. If the redemption side is share-denominated, the transfer agent must apply the NAV for the fund to calculate dollars. The transfer agent then divides these dollars by the NAV of the fund into which the exchange is going. This gives the number of shares to be purchased in that fund. When the transfer agent system is processing the nightly cycle for a fund family, and the exchange is between two funds in that family, doing all this is straightforward. The system has the NAVs of both funds as it does its calculations.

But what if the two funds come from different fund families and are processed by different transfer agents? Mutual fund supermarkets allow their investors to switch their holdings among funds in the supermarket, even if the funds come from different families. The supermarkets want to make these switches look just like exchanges: Both the redemption and the purchase transaction should get the same day's NAV. After all, one of the big selling points of the fund supermarket is the ability to move easily from fund to fund, just as though they were all in one big family.

This is easier said than done. The supermarket would like to just roll up all the dollar-denominated trades for each fund, and all the share-denominated trades, and send two omnibus trades to the transfer agent. But if the investor denominates the redemption side of an exchange in shares (e.g., "move all of my shares out of that crummy fund"), then the quantity on the purchase side can be determined only after the redemption side has been processed. The purchase trade can't be rolled in with other trades to be sent to the transfer agent, because it doesn't have a quantity yet. In the early days of the fund supermarkets, a switch between funds of different families was a two-day event. The redemption was priced on night one, and then, when the dollars available to purchase had been determined, the purchase was priced on night two. The investor was effectively out of the market for a day.

Recently, the supermarkets have become more sophisticated in how they approach this issue. They get the NAVs from the fund groups and run a special program to price the redemption side of switches to determine the dollar amount of the purchase transactions. If need be, they arrange with the funds' transfer agents to take their trades later in the night, to give them time to do this preprocessing. Then they can include both sides of the switch in night one's transmissions to the transfer agents, and the investor's money moves seamlessly from one fund to the other without the day's delay. As a result of the late trading complaint discussed earlier in this chapter, many supermarkets and transfer agents have enhanced their systems and procedures to insure these "later in the night" trades fully meet the forward pricing regulations.

that a $9,000 purchase should have occurred on April 1 when the price was $9.00/share, but wasn't processed until April 5, by which date the price had risen to $10.00/share. The shareholder should get 1,000 shares for the $9,000, but by April 5 those 1,000 shares are worth $10,000 to the fund. Who pays this extra $1,000 to make both the shareholder and the

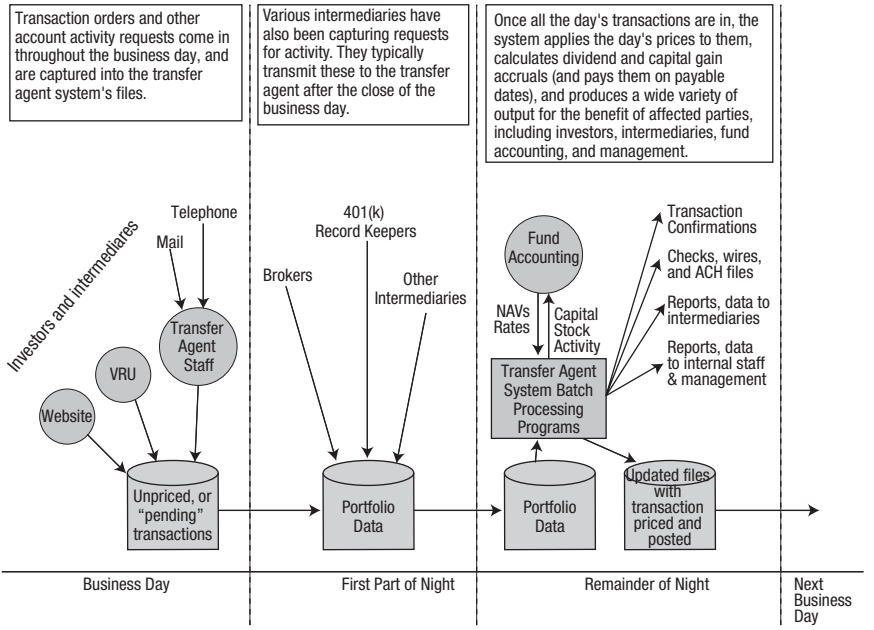
fund whole? As-of processing often requires determining whose fault the mistake was (transfer agent, investor, broker), so that the guilty party can be assessed accordingly.

Transfer agents usually have one or more departments that specialize in processing transactions. A common organizational pattern has one group specializing in purchases, one in redemptions, exchanges, and transfers, and a third group of highly trained and experienced individuals handling reversals, adjustments, and very complex transactions.

The Daily Processing Cycle

Over the course of each day, the transfer agent receives mail, telephone calls, faxes, email, and electronic transmissions from a variety of internal and external sources, all bearing transactions to be processed. Early in the evening the fund accountant for the funds determines the day's NAV per share and transmits this to the transfer agent. Once the NAV is available and all the day's trades have been entered, the transfer agent system can process the trades. This processing includes pricing the trades, calculating commissions (for load funds), accruing and paying dividends and capital gains, ordering money movements, and reporting to various parties. (See the figure entitled "The Daily Processing Cycle" for a graphical depiction.)

The Daily Processing Cycle



Pricing and Commission Calculation

Investors may denominate their financial transactions in dollars (e.g., purchase $10,000 worth of shares in Fund X) or in shares (e.g., redeem 500 shares from Fund Y or exchange half the shares in Fund X to Fund Y). To process these transactions, the system first determines the per-share price at which to convert dollars to shares or shares to dollars. For all redemptions, and for purchases into no-load funds, the system prices the trade at the applicable NAV.

When an investor purchases shares in a fund with a front-end load, the transaction is priced at a public offering price that reflects the effect of the commission. For example, an investor buying into a fund with an NAV of $10.00 and a front-end load of 4 percent would actually pay $10.42 per share. The fund would get $10 per share, and the intermediaries involved (typically a broker and the fund's principal distributor) would get the remainder as commission. The transfer agent system determines the appropriate commission level and price, considering the fund's load table, the amount of the transaction, and any volume discount to which the investor is entitled. (Fund load structures were discussed in Chapter 8.)

Redemption transactions from load funds may involve a back-end charge —sometimes a redemption fee (which goes to the fund to compensate it for the expense caused by the redemption), sometimes a commission, such as a contingent deferred sales charge. In such a case, the transaction is priced at NAV, and the appropriate amount is deducted from the proceeds. (Although not normally part of the daily cycle, the transfer agent also calculates and pays asset-based commissions and fees, such as 12b-1 commissions to brokers, or service fees to supermarkets like Schwab. The transfer agent periodically determines the shareholder assets that qualify for this fee or commission, extends them by the appropriate rate, and pays the intermediaries the sum derived from the shareholder assets they control (or determines how much the fund's distributor should pay). For example, funds that are part of a supermarket pay the brokerage firm 25 to 35 basis points annually on the average value of their accounts.)

As part of the pricing process, the transfer agent system updates records for the fund, the shareholder, and (if appropriate) the intermediaries. It creates entries in the system's database or files that will trigger confirmations and money movements; these entries will be included in reports to various interested parties. Figure 11.2 (see page 263), at the end of this chapter, shows an example of one of the most important reports from this process, the share and cash activity summary that goes to fund accounting (sometimes called the supersheet). This tells fund accounting the net effect on the fund of the day's activity by investors, so the fund accountants can properly figure it into the next day's NAV calculations.

Dividend and Capital Gains Processing

After the day's transactions have been priced and posted, the transfer agent system processing typically turns next to shareholder dividend and capital gains accruals and payments. On any given night, there may or may not be accruals and/or payments, depending on the fund. The pattern of dividends and capital gains the fund pays its shareholders reflects the nature of the underlying securities in which the fund itself invests.

Shareholders in fixed income funds typically accrue dividends each day, as the fund accrues interest in the bonds it holds. The stocks that equity funds hold typically declare dividends on a periodic basis, so equity funds do the same. An investor who holds shares in an equity fund on the fund's declared record date is eligible to participate in the dividend. Funds of all types distribute their capital gains—the profit resulting from the fund selling securities—periodically to shareholders who hold shares as of the record date. (Funds holding mostly mortgage-backed securities distribute both dividends and capital gains each period, as mortgage holders make principal and interest payments on the mortgages underlying the securities.)

Different transfer agent systems handle accruals differently—some determine each shareholder's accrual each day, and some wait until payment date to calculate the accrual for the entire period. When the payment date for a dividend or capital gain distribution arrives, however, the system performs several steps for each shareholder as part of the batch cycle:

- It makes a final determination of the dollar value the shareholder gets as part of this dividend or gain.
- It determines from the shareholder's records in the system how he or she wants to receive the payment, and whether any tax withholding must be taken.
- It generates one or more transactions to effect the dividend or gain payment:
  - a purchase of additional shares for the investor who wants to reinvest;
  - a money movement order for cash payment for the investor who wants to receive cash—usually a check or ACH transaction (or inclusion in a group payment to an intermediary); or
  - an internal money movement transaction with a matching purchase transaction for theshareholder who wishes to use the dividend or gain to purchase shares of another fund in the family.
  - It also accumulates totals for fund accounting and management reporting.

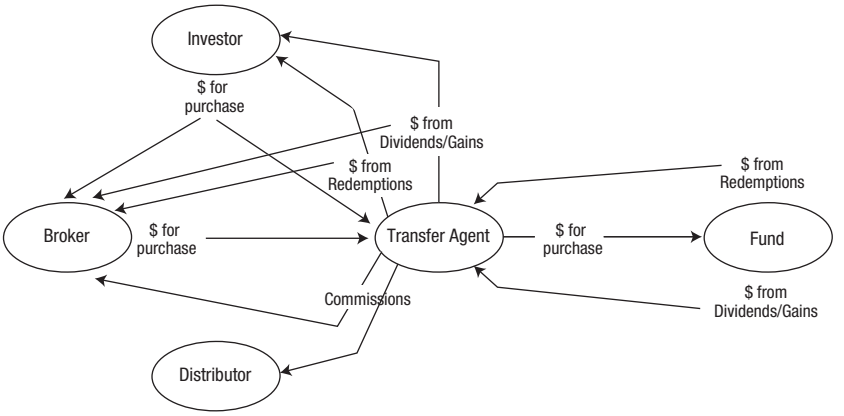
Most dividend and capital gain processing occurs on the nights of payment dates for regular distributions. In fact, getting the nightly processing cycle fin-

ished in time on nights on which there are large funds paying their dividend challenges many transfer agents. Most fund groups also pay out the accrued dividend when a shareholder completely redeems his or her holdings in a fund. Most transfer agents, therefore, do some dividend and capital gain processing every business night.

Ordering Money Movement

All of the activity the transfer agent processes (see diagram below) each day involves the movement of money among investors, intermediaries, funds, and transfer agent accounts. The figure entitled "Major Fund Flows in Daily Transfer Agent Processing" summarizes the major flows. As this figure suggests, the transfer agent sits in the middle of the money flow between the fund on one hand and the investors and intermediaries on the other. Every transfer agent has a department that concerns itself with the monitoring and control of these cash movements.

Transfer agents exchange money with many brokerage firms on a net settlement basis. They don't attempt to create a check or wire for every transaction, but rather add up all the flows to and from the broker for the day, and receive (or pay) the net amount due. NSCC Fund/SERV (discussed in Chapter 8) takes this a step further. It creates one net settlement cash transaction for each fund each day, representing the net total of the fund's cash exchanges with all brokers with which the fund is interacting through Fund/SERV. (It does the same thing for the brokers.) For a transfer agent handling a load fund complex, this can reduce the number of checks or wires needed for settling with brokerage firms from dozens or even hundreds to just one per fund.



Major fund flows in daily transfer agent processing.

Reporting

The transfer agent produces many reports as part of its daily processing, and on other cycles—weekly, monthly, quarterly, on demand—as well. Some of these go outside the fund complex to investors, brokers, and other intermediaries, and various third parties, reporting the shareholder's activity or account status. Transfer agents also produce a number of tax-related forms that go both to the shareholder and the government. Finally, the transfer agent produces much internal reporting that is needed to help control the operations of the fund complex. The following list provides a summary:

- *To shareholders, intermediaries, and interested parties*. The transfer agent must confirm transaction activity as soon as it is processed. The trade confirmation, an example of which is shown at the end of the chapter in Figure 11.3 (see page 264), may go to the shareholder, the intermediary, or both,

Transfer Agent Profile: Boston Financial

Boston Financial Data Services (Boston Financial) was founded in 1973 as a corporate joint venture between one of the world's largest banking and custody operations, State Street Corporation in Boston, and DST Systems, a Kansas City-based leader in the design, development, and operation of proprietary shareholder accounting systems. Boston Financial, a full service mutual fund transfer agent, was designed to satisfy the growing demand by mutual fund customers for a dedicated shareholder recordkeeping facility and a single relationship with a bank for both custodial and transfer agency services.

Boston Financial grew from 87 associates servicing 385,000 shareholders to over 3,000 associates serving over 26 million shareholders, including all lines of business and a fast-growing global enterprise. When Boston Financial began in a corner of the 5th floor of the Sate Street Adams building in Quincy, Massachusetts, the world was a different place with economic uncertainties and technological breakthroughs yet to come. Boston Financial survived a recession, a market crash, the rush to global expansion, and phenomenal growth in the mutual fund industry.

Each group did, indeed, bring something to the party. State Street brought its highly regarded custody and accounting skills and an existing transfer agency business. DST brought its respected mutual fund systems development skills and a strong desire to break into the East Coast market where in 1973, as today, the bulk of the mutual fund business resided. The result? A joint venture that remains unique, helping all three organizations to focus their business and their competencies and grow in a way that might not have happened independent of one another.

The Boston Financial venture is one of the longest standing corporate partnerships in business. Together, State Street, DST Systems, and Boston Financial have achieved significant market share by being people focused, technologically superior, and able to work together for their common client interests.

and copies may be sent to interested parties, such as the investor's accountant. Transfer agents also send confirmations when a change is made in some attribute of the shareholder account. When the address of registration on an account changes, the transfer agent sends confirmations to the account holder at both the old and new addresses, to help prevent fraud. The transfer agent system typically produces all these types of confirmations automatically as part of normal processing. While most confirmations continue to go to the shareholder via mail, some transfer agents have begun to offer electronic delivery via e-mail.

Shareholders must receive periodic statements that show the balance, value, and activity summary for their accounts. Most commonly, funds send these statements once a quarter, at calendar quarter-end. Since fund company management recognizes that these statements often provide their most visible point of contact with the shareholder, they go to great lengths to make them attractive, informative documents. The sample quarterly statement shown at the end of the chapter (see Figure 11.4, page 265) illustrates some of the common features of shareholder statements. It reports three different funds that the investor holds in four different accounts, summarizes the beginning and ending positions within each fund. Each account includes a graphical investment mix by type of fund, the dividends and gains that were distributed, the trade activity for each fund and each fund's performance. Some statements also feature a graphical or tabular summary of how the shareholder's fund holdings are allocated among different asset classes. As with confirmations, investors may direct the transfer agent to send copies of their statements to interested parties.

Most transfer agents today also provide annual statements, similar to the monthly or quarterly statements, to their shareholders showing the tax cost basis of redemption transactions (assuming the transfer agent has sufficient information to determine this cost). The investor uses this information when completing Schedule D on his or her tax return.

In those cases where the investor buys shares in a fund through an intermediary such as a broker or a fund supermarket, this intermediary may produce some or even all of the shareholder's confirmations, statements, tax forms, and other reports. When transfer agent staff set up these shareholder accounts, they enter code values that instruct the transfer agent system which, if any, reports to produce for the account.

- *Tax reporting*. Mutual fund transfer agents commonly produce five types of tax forms for their shareholders (except where an intermediary has taken over this responsibility).
  - *1099DIV*. Dividends and Distributions. The transfer agent produces these early in the calendar year to summarize for income tax reporting

purposes all the taxable dividend and capital gain distributions the shareholder has received from the fund during the previous year.

- *1099B*. Proceeds from Broker and Barter Exchange. This form contains all the disposition transactions—redemptions and exchanges out of the fund—the shareholder executed during the tax year. The shareholder must account for these trades on his or her Form 1040, Schedule D.
- *1099R*. Distributions from Pensions, Annuities, Retirement or Profit-Sharing Plans, IRAs, Insurance Contracts, etc. The transfer agent produces this form for each retirement account, to report all the distributions (meaning redemption of shares in this case) to the shareholder during the year.
- *5498*. Individual Retirement Arrangement Information. For each IRA account the transfer agent processes, it produces this form, summarizing the contributions (meaning share purchases) for the account during the year, and stating the account value at year-end.
- *1042S*. Foreign Person's U.S. Source Income Subject to Withholding. The transfer agent produces this form for foreign holders of U.S. mutual funds to report all items of income received from the fund, and any tax withheld on that income.

- *Management reporting*. Finally, the transfer agent produces dozens or even hundreds of reports—daily, weekly, monthly, quarterly, on demand—to help manage the funds and their relationships with their counterparties, and to ensure regulatory compliance. These reports capture various aspects of the fund complex's activity over a period, or the current status of key indicators of the fund's health:
  - *Status and activity reporting*. Many reports simply describe what has been going on in the fund, at varying levels of detail. Every day the transfer agent produces reports that detail all the day's activity and balance the records—ensuring that the starting positions plus the day's activity equal the ending positions. Transfer agents for load funds produce reports that show commission amounts by broker, so that they can settle with their brokers for the day's activity. Transfer agent management uses reports of activity processed to monitor the performance of the staff. Executives of the management company get reports of the overall activity for both short-term and long-term sessions: short-term, to coordinate with investment managers the process of investing or raising cash to direct shareholder flows; long-term, to assess effectivenes of marketing activities and discern investor preferences. The number of internal reports produced by any transfer agent runs into the hundreds.
  - *Sales reporting*. Sales reporting provides detailed and summary information about money flows (purchases and redemptions) broken down by the attributes that are important to the fund group as it manages its

Transfer Agent Profile: Liberty Investor Services Company

The evolution of Liberty's transfer agent illustrates the forces that have led so many fund groups to internalize this function. In 1986, The Colonial Group, at the time one of the leading broker-distributed fund families, decided to internalize the transfer agent in two steps. First, it would start performing all the functions with internal staff, while continuing to use the Bank of Boston's Eagle transfer agent system. Second, it would develop its own system and switch from Eagle to this new system. Colonial had found that depending on a third party constrained them from innovating as quickly as they wanted. As Herb Emilson, Colonial's President, put it, "every time you asked them to add or change any little thing, they would say 'that will be 6 months and $200,000.' We needed to get control of our own destiny."[9]

Colonial internalized the transfer agent staffing in 1986, and by 1989 was up and running on CTRAN, its brand-new, tailor-made system. The transfer agent, now a separate subsidiary called Citadel Services Corporation, performed back-office functions in Boston, and telephone service from a new facility in a suburb of Denver. Seeking to exploit its new capabilities and system, Citadel entered the third-party transfer agent business, and attracted several clients, including the Met Life/State Street Funds and the Founders Funds.

In 1992, the opportunity to provide service to a fund family even larger than Colonial itself prompted senior management to rethink the company's priorities. After careful consideration, they decided that the third-party service business actually distracted them from their real strength, managing money. As a result, they declined to take on the new fund group, and started to shut down the third-party business they already had. By 1994, Citadel had disappeared, and once again Colonial's internal transfer agent was handling only the Colonial funds.

In 1995, The Liberty Financial Companies, which managed its own small family of funds, and owned the Stein Roe Funds in Chicago, acquired the Colonial Group. Over the next few years, Liberty continued to acquire funds, all of which it converted to the old Colonial transfer agent, which was renamed Liberty Investor Services Company. By 1999, LISCO performed all transfer agent functions for the approximately 1.5 million shareholders of the Colonial, Stein Roe, Crabbe Huson, and Newport families of funds.

In 2001, Liberty Financial Companies was acquired by FleetBoston Financial Corporation which managed both the Columbia and Galaxy family of funds. In 2003, the complex was renamed ColumbiaFunds. Since then, most of the transfer agent functions, including the transfer agent system, have slowly been outsourced to Boston Financial Data Services and only certain administrative and call center activities remain. In 2004, FleetBoston Financial Corporation was acquired by Bank of America Corp.

sales effort. These attributes differ according to the distribution methods the funds use. Load fund groups track sales by agents—wholesalers, brokerage firms, individual representatives, banks, bank branches—to help determine who is effectively selling the fund. No-load funds track sales by channel (direct mail, financial planner, supermarket, etc.) and by characteristics of the investors (account type, location, etc.) to see where their

sales are coming from and to help determine what marketing efforts are succeeding.

- *Blue sky compliance monitoring.* State regulations, known as blue sky laws, cover the offering and sale of securities (including mutual fund shares) within state lines, and these typically require registration of the securities themselves. (The term blue sky law reportedly originated with a judge, who was trying to protect investors from unwittingly buying a particular stock offering that he claimed had as much value as "a patch of blue sky.") Fund administration must monitor the number of shares sold state by state, and register additional shares in a state as necessary. The transfer agent provides reports and data feeds with daily activity by state so the blue sky compliance monitoring group can ensure that the fund complies with state registration requirements.
- *Escheatment.* The transfer agent must report on all accounts for which the holder can no longer be located. Unclaimed property laws, or escheat laws as they are often termed, enable states to take possession of unclaimed bank accounts, insurance policies, and mutual funds. When a transfer agent sends mail to a shareholder, and the Post Office returns it as undeliverable, the account becomes an RPO (returned by post office) account, and the escheatment clock starts ticking. If the transfer agent is unable to locate the shareholder within a specified period (usually three to five years), the state claims the holdings.

  Most accounts become lost because the shareholder moves, fails to notify the transfer agent of the change of address, and is unaware that the account has been placed on the RPO list. Investors who die, leaving the heirs without sufficient information about their holdings, also contribute to the problem. One account of mutual fund escheatment estimated that about two percent of the U.S. shareholder base falls into the lost, RPO status.[10] This has spawned a niche business within the industry for firms that specialize in finding owners of these dormant accounts in return for a share of the account value.
- *Proxy processing.* The 1940 Act and subsequent regulations give mutual fund shareholders the right to vote on a number of specific questions concerning their fund, such as approving the contract with the investment advisor. Funds effect this voting by sending proxies to the shareholders, giving each a number of votes equal to the number of shares he or she holds as of the record date. The transfer agent starts this process by determining each shareholder's eligibility (i.e., number of votes) and creating a data file with this information along with the shareholder's name and address.

Many internal transfer agents turn this file over to a third-party proxy processor to handle all the subsequent steps, which include printing and mailing ballots to send to the shareholders, and tabulating the results as shareholders send in their votes. The major third-party transfer agent service vendors include proxy processing in their array of services.

- *Monitoring/Regulatory Reporting.* A large (and growing) number of reports are also required to meet various regulatory requirements. For example, transfer agent systems have specialized reports to identify all shareholder accounts that hold five percent or more of each class of each fund's shares, as Item 13 of Form N-1A has a specific requirement to disclose the name, address, and percentage of ownership of all "principal holders" (defined as five percent-or-more holders) of each class of shares. (In some cases where a particular class of shares in an otherwise very large fund has only recently been offered or has not been well-subscribed, some shareholders that made an otherwise small total-dollar investment in that class have been unpleasantly surprised to find that their name, address, and shareholdings have become a matter of public record because of this requirement.

  More importantly, investment companies, like banks and other financial institutions, have increasingly become subject to the requirements of federal anti-money laundering statutes as well as the USA PATRIOT Act. As a result, transfer agents have put in place reports to monitor suspicious activity in shareholder accounts, such as high levels of wire transfer activity in individual accounts or money movement to or from unusual locales. Other reports, of all types of rapid fund trading activity, can serve "double-duty" to identify both suspicious money movements and possible market timing activity in violation of fund policies. Transfer agents normally have dedicated, trained personnel review these reports and follow up on activity that appears out of the ordinary.

Transfer Agent Back-Office Technology

The transfer agent system represents the single biggest component of information technology required to support shareholder administration back-office functions. These systems comprise hundreds of batch and online programs that embody literally millions of lines of business logic. The replacement cost of a transfer agent system such as those run by DST or PFPC is easily many tens of millions of dollars. The Bank of New York decided in 1988 to leave the third-party transfer agent business, in large part because it anticipated having to spend $30 million or more to replace its transfer agent system.

Transfer agent system processing reads, writes, and updates data in an extensive database of information representing the world of shareholder

Transfer Agent Profile: First Data Investor Services Group

First Data Investor Services Group, once the second-largest third-party transfer agent service provider in the United States, has been termed "a recovered patient of reconstructive surgery."[11] This label reflected its evolution as an assembly of once independent parts, at least one which had been split and later brought back together. The trail of acquisitions that resulted in the FDISG of the late 1990s is evidenced by its use of not one, or even two, but three separate transfer agent systems.

One root of the FDISG family tree lies within one of the early mutual fund transfer agents, Bradford National Corporation, which encountered financial difficulties in 1984 that forced it to sell off all its assets to pay creditors. Among these was Bradford's transfer agent business, then named Fidata Systems, which it sold, along with its new transfer agent system PAR (Personal Asset Recordkeeping), to Pittsburgh-based Mellon Bank in 1985. A second main root arose in Shearson Lehman Hutton's subsidiary The Boston Company (TBC), which got into the mutual fund service business in the early 1980s. In 1989, American Express, the parent of Shearson, decided to move TBC's transfer agent business (now named The Shareholder Services Group) to its newly formed Information Services unit. Along with TSSG came its transfer agent system, FSR (Full Service Retail). (TBC's other mutual fund service functions, notably fund accounting, stayed at TBC.)

These two branches came together in 1990, when Mellon decided that the transfer agent business wasn't so attractive after all, and sold its business and system to TSSG. For a while in the early 1990s, TSSG ran several clones of FSR to service different clients, but in a major effort, managed to scale back to the two basic systems. PAR supported remote clients (i.e., fund groups doing their own transfer agent work) while FSR continued to support those clients for which TSSG performed the transfer agent functions.

Ironically, the old TBC operations, which had been split when Mellon bought the transfer agent business, came together again in 1996 due to who else but Mellon. Mellon had bought all of TBC in 1994, but then decided that they did not want to be in the third party fund accounting business, so sold that part of the acquisition to First Data. Thus the reconstructive surgery.

With First Data's acquisition of the fund accounting business (as well as pension record keeping units), TSSG was renamed FDISG. In 1997, FDISG acquired a third transfer agent system—SuRPAS, along with its vendor, Funds Associates Limited. FDISG stated that SuRPAS would enhance its ability to support asset allocation and wrap programs, as well as mutual fund supermarket programs.

In 1999 First Data Corporation decided against continuing in the mutual fund servicing business, and sold FDISG to PFPC for $1.1 billion. This acquisition vaulted PFPC into contention with DST for the position of industry leader in full service shareholder processing, a position it currently holds as of December 31, 2003.

activity. This database may contain dozens of tables or record types that store information about four basic entities:

- *Fund.* The system stores all the standing rules of the fund that control shareholder account setup (e.g., this fund allows SWPs but not check writing) and processing (e.g., load tables and dividend schedules), as well as the rates and NAVs needed to price transactions and calculate dividends and capital gains.
- *Investor.* To process the shareholder's account properly and produce and deliver the appropriate reports, the system must have data on the investor and his or her accounts with the funds. This includes information about the investor contained on the account application, as well as balance and summary information developed as the investor interacts with the fund.
- *Intermediary or other interested party.* The system requires data on intermediaries to handle commission and fee calculations and payments properly. In addition, the system must have the needed data on all the various interested parties who will receive duplicate reports, make trade orders, receive payments, or otherwise participate in the account.
- *Transaction.* The major volume of data in any transfer agent system's database lies in the records of the transactions the transfer agent has carried out for the shareholders—trades, distributions, adjustments, commission payments, option changes. For a large fund family such as Vanguard or Putnam, the transaction records in the transfer agent system occupy hundreds of gigabytes of computer disk storage.

Most legacy transfer agent systems are mainframe-based, but most today use the mainframe primarily as a data server and batch processor. Transfer agent staff interact with intelligent workstations that present the transfer agent system's functions via a graphical user interface. Wrapping the legacy system this way allows transfer agents to preserve their investment in the legacy systems, while providing their staff with the productivity gains associated with the latest graphical interfaces. In addition to interfaces provided by its online screens and windows, the transfer agent system sends data to and receives data from other computers via dozens of file exchanges and transmissions.

Most transfer agents today also use document imaging systems to facilitate processing. They categorize and scan incoming mail, and workflow control software then routes the images of the documents for subsequent processing. Transfer agent staff setting up new accounts and entering trades have images of documents on their workstations next to the windows with transfer agent system functions. Imaging and workflow systems enhance management control by positively tracking the status of all items as they make their way through the transfer agent, and reporting any problems or delays. As we will see in Chapter 12, these images, once captured and processed, serve to support client service as well.

Figure 11.1 Example of account application from Fidelity.

Fidelity Account Application p. 1

1 ACCOUNT SETUP

☐ **Individual** ☐ **Joint Tenants – Rights of Survivorship** ☐ **Joint Tenants in Common** ☐ **Community Property**
If you are establishing a joint account and do not check a box, the account will be registered as joint tenants with rights of survivorship. If the joint owner has a different address, please include it on the next page.

☐ **Custodial (UGMA/UTMA)** Under the (state) _____ Uniform Gifts/Transfers to Minors Act, if you are establishing a Custodial account and have not indicated a state under which the gift or transfer is made, the state provided as a permanent address will be used unless otherwise noted below.

☐ **Estate** For Estate accounts, list the Estate name as the account owner and the Executor's name as the joint owner. Estate accounts require a court appointment (dated within 60 days) with this application and may require other paperwork.

☐ **Other Non-Trust; Fiduciary:** _____

ACCOUNT OWNER/MINOR

Full legal name _____ (First Name / Middle Name / Last Name)

Date of birth (month/day/year) ☐☐-☐☐-☐☐☐☐ **Email address** _____

Social Security number ☐☐☐-☐☐-☐☐☐☐ **or Taxpayer ID number** ☐☐-☐☐☐☐☐☐☐

Permanent address (no P.O. boxes) _____ (Street / City / State / Zip)

Mailing address (if different from above) _____ (Street / City / State / Zip)

Phone numbers Daytime ☐☐☐-☐☐☐-☐☐☐☐ Evening ☐☐☐-☐☐☐-☐☐☐☐

Countries of citizenship ☐ U.S. ☐ Other(s) _____ Country of tax residence ☐ U.S. ☐ Other _____

GOVERNMENT ID (FOREIGN CITIZENS ONLY) Identification document must have a reference number and photo. Please attach a photocopy.

Place of birth _____ (City / State/Province / Country)

Immigration status ☐ Permanent resident ☐ Non-permanent resident ☐ Non-resident

Check which type of document you are providing:

☐ U.S. driver's license ☐ INS permanent resident alien card ☐ Passport with U.S. visa

☐ Passport without U.S. visa* _____ *Bank name required *Account number required

☐ Foreign national identity document* _____ *Bank address required *Phone number required

Document number and country of issuance _____ (Number from the document checked above)

U.S. driver's license number (if available) _____ State of issuance ☐☐

Employment status ☐ Employed ☐ Not employed ☐ Retired Occupation _____ (if retired or not employed, indicate source of income)

Employer's name and address _____ (Name / Street / City / State / Zip)

AFFILIATIONS Are you affiliated with or employed by a stock exchange or member firm of an exchange or the NASD, a municipal securities broker-dealer, or by Fidelity?

☐ No ☐ Yes If you have answered "yes," you must include a letter of account approval from your Compliance Officer and indicate your employer's company name and address above. Failure to include an approval letter may delay the processing of your request. An account approval letter is not required for Fidelity employees.

Are you a "control person" or "affiliate" of a public company as defined in SEC Rule 144? This would include, but is not necessarily limited to, 10% shareholders, policy-making executives, and members of the Board of Directors.

☐ No ☐ Yes Trading symbol ☐☐☐☐☐☐ Company _____

1.794073.103 004520001

Source: Fidelity Investments. Copyright 2004 FMR Corp. All rights reserved. Used with permission.

Figure 11.1 *(continued)*

1 ACCOUNT SETUP (CONTINUED)

JOINT ACCOUNT OWNER/CUSTODIAN

We assume the permanent address is the same unless otherwise noted.

☐ Check this box if a joint owner has a different address and you would like duplicate copies of the confirmation of the new account profile, confirmation of changes to the investment objectives, and the tri-annual account profile confirmation sent to that separate address.

Full legal name _____ First Name _____ Middle Name _____ Last Name

Date of birth (month/day/year) ☐☐-☐☐-☐☐☐☐ Email address _____

Social Security number ☐☐☐-☐☐-☐☐☐☐ **or Taxpayer ID number** ☐☐-☐☐☐☐☐☐☐

Permanent address (no P.O. boxes) _____ Street _____ City _____ State _____ Zip

Mailing address (if different from above) _____ Street _____ City _____ State _____ Zip

Phone numbers Daytime ☐☐☐-☐☐☐-☐☐☐☐ Evening ☐☐☐-☐☐☐-☐☐☐☐

Countries of citizenship ☐ U.S. ☐ Other(s) _____ Country of tax residence ☐ U.S. ☐ Other _____

GOVERNMENT ID (FOREIGN CITIZENS ONLY) Identification document must have a reference number and photo. Please attach a photocopy.

Place of birth _____ City _____ State/Province _____ Country

Immigration status ☐ Permanent resident ☐ Non-permanent resident ☐ Non-resident

Check which type of document you are providing:

☐ U.S. driver's license ☐ INS permanent resident alien card ☐ Passport with U.S. visa

☐ Passport without U.S. visa* _____ *Bank name required _____ *Account number required

☐ Foreign national identity document* _____ *Bank address required _____ *Phone number required

Document number and country of issuance _____ (Number from the document checked above)

U.S. driver's license number (if available) _____ State of issuance ☐☐

Employment status ☐ Employed ☐ Not employed ☐ Retired Occupation _____ (if retired or not employed, indicate source of income)

Employer's name and address _____ Name _____ Street _____ City _____ State _____ Zip

AFFILIATIONS Are you affiliated with or employed by a stock exchange or member firm of an exchange or the NASD, a municipal securities broker-dealer, or by Fidelity?

☐ No ☐ Yes If you have answered "yes," you must include a letter of account approval from your Compliance Officer and indicate your employer's company name and address above. Failure to include an approval letter may delay the processing of your request. An account approval letter is not required for Fidelity employees.

Are you a "control person" or "affiliate" of a public company as defined in SEC Rule 144? This would include, but is not necessarily limited to, 10% shareholders, policy-making executives, and members of the Board of Directors.

☐ No ☐ Yes Trading symbol ☐☐☐☐☐☐ Company _____

Fidelity Account Application p. 3

2 FINANCIAL PROFILE (REQUIRED)

YOUR INVESTMENT OBJECTIVE

You should choose your investments based on your objectives, time frame, and tolerance for market fluctuation. From short-term liquid investments that seek to preserve capital (accepting the lowest returns in exchange for stability) to longer-term investments that seek maximum growth (but can tolerate very wide fluctuations in market values), you can choose an approach that's best for you. Simply check the box below that most closely matches your investment objective.

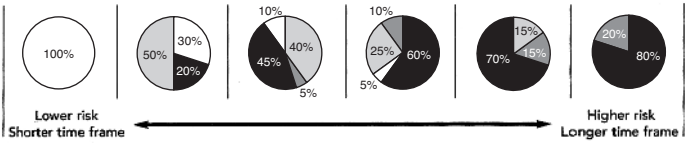
For joint accounts, please provide combined information.

Check one profile (Determine your profile using the information below.)

☐ 1 Short-Term ☐ 2 Conservative ☐ 6 Balanced ☐ 3 Growth ☐ 5 Aggressive Growth ☐ 4 Most Aggressive

SAMPLE PORTFOLIO MIX

Asset Class
☐ Short-Term ☐ Bonds
☐ International Stocks
■ U.S. Domestic Stocks



RETURN DATA*

1 Year Best	15.20%	31.06%	76.57%	109.55%	136.07%	162.89%
1 Year Worst	0.04%	-17.67%	-40.64%	-52.92%	-60.78%	-67.56%
5 Years Best	11.13%	16.79%	22.06%	27.23%	31.91%	36.12%
5 Years Worst	0.06%	-0.37%	-6.18%	-10.43%	-13.78%	-17.36%
20 Years Best	7.73%	10.85%	13.94%	15.62%	16.85%	17.88%
20 Years Worst	0.42%	2.92%	3.43%	3.10%	2.66%	1.89%
Average (1926–2003)	3.75%	6.22%	8.23%	9.26%	9.95%	10.47%

Short-Term You seek to preserve your capital and can accept the lowest returns in exchange for price stability.
Conservative You seek to minimize fluctuations in market values by taking an income-oriented approach with some potential for capital appreciation (minimum required for writing covered call options).
Balanced You seek the potential for capital appreciation and some growth and can withstand moderate fluctuations in market value.
Growth You have a preference for growth and can withstand significant fluctuations in market value.
Aggressive Growth You seek aggressive growth and can tolerate wide fluctuations in market values, especially over the short term.
Most Aggressive You seek very aggressive growth and can tolerate very wide fluctuations in market values, especially over the short term (required for options strategies other than writing covered call options).

Check one box in each column.

ANNUAL INCOME (from all sources)	ESTIMATED NET WORTH (excluding residence)	ESTIMATED LIQUID NET WORTH	FEDERAL TAX BRACKET
☐ 1 Under $20,000	☐ 1 Under $30,000	☐ 1 Under $15,000	☐ 1 ≤15%
☐ 2 $20,000–$50,000	☐ 1 $30,000–$50,000	☐ 1 $15,000–$50,000	☐ 2 25%
☐ 3 $50,001–$100,000	☐ 2 $50,001–$100,000	☐ 2 $50,001–$100,000	☐ 3 ≥28%
☐ 4 Over $100,000	☐ 3 $100,001–$500,000	☐ 3 $100,001–$500,000	
	☐ 4 Over $500,000	☐ 4 Over $500,000	

*Average annual return data for Domestic Stocks, Bonds, and Short-Term asset classes range over a period from 1926–2003. Return data for the International Stock asset class range over the period from 1970–2003. Domestic Stocks are represented by the S&P 500,® bonds are represented by the U.S. Intermediate Term Government Bonds, Short Term assets are based on the 30-day U.S. Treasury bill, and International Stocks are represented by the MS EAFE Index. This is for illustrative purposes only and is not indicative of any investment. Past performance is no guarantee of future results.

Figure 11.1 *(continued)*

3 FUNDING YOUR ACCOUNT

The minimum initial deposit required to open this account is $2,500 in cash and/or eligible securities. Orders placed in a new account require 100% of any initial trade's value. You may fund your Fidelity Account* in any of the five ways listed below:

BY CHECK

☐ I have enclosed a check for $ _____ made payable to **National Financial Services LLC**, to be deposited to my core Fidelity Account.

TRANSFER FROM OTHER FIRM

☐ I am transferring money or securities from another firm and have included a Transfer of Assets form. (see attached form)

$ _____

BY WIRE

☐ I am wiring funds to Fidelity from my bank or brokerage firm. Contact a Fidelity Representative for further instructions.

$ _____

TRANSFER FROM EXISTING FIDELITY ACCOUNT

☐ I am transferring all shares or positions from my nonretirement Fidelity Account(s) and/or Fidelity Fund(s) Account:

☐☐☐-☐☐☐☐☐☐

☐ I am transferring money from a Fidelity Serviced Pension Plan/Deferred Benefit Plan. Please contact your plan for distribution instructions.

DEPOSITING CERTIFICATES

☐ I am depositing _____ appropriately endorsed certificates. (Endorse the back of each certificate as registered and write "National Financial Services LLC" on the line between "appoint" and "attorney.")

CORE ACCOUNT (CHOOSE ONE)

All income from securities (dividends, capital gains, or sale proceeds) is automatically deposited into your core account. Dividends from mutual funds are reinvested in the originating fund. You can elect to change your distributions by phone at 1-800-FIDELITY, or online at Fidelity.com.

Select a core account option where all of your cash is held and transactions are processed (choose one).

Fidelity state municipal money market funds seek income from investments that is free from both federal and state or city income tax.

☐ Arizona	☐ Connecticut	☐ Massachusetts	☐ New Jersey	☐ Ohio
☐ California	☐ Florida	☐ Michigan	☐ New York	☐ Pennsylvania

Fidelity federal municipal money market funds seek income from investments that is free from federal income tax.

☐ Fidelity Municipal Money Market Fund

☐ Fidelity Tax-Free Money Market Fund (This fund will not normally invest in municipal securities whose interest is subject to the Federal Alternative Minimum Tax.)

Fidelity taxable interest-bearing cash account is intended for money awaiting reinvestment; interest rate may vary depending on assets. (This account will be selected if no information is supplied or if your initial investment is less than $5,000.)

☐ Taxable Cash Account

PURCHASE FUNDS

Please purchase a mutual fund(s) as indicated below. I understand the fund(s) can only be purchased consistent with its prospectus and after my check has been deposited in my core account. I have read the prospectus for this fund.

Fund Family _____ Fund Name _____

Fund Symbol _____ Amount* $ _____ (Generally $2,500 minimum)

*Fidelity fund minimums are generally $2,500. Higher minimums apply. See prospectus for more information. For non-Fidelity funds, see prospectus for minimums.

4 ACCOUNT FEATURES

OVERDRAFT PROTECTION AND MARGIN BORROWING[1]

This borrowing feature allows you to use your eligible individual securities or mutual funds as collateral for overdraft protection, for the purchase of additional securities, as a low-cost loan alternative, or for debt consolidation.

☐ Check here to be considered for overdraft protection and margin borrowing

ACTIVE TRADER FEATURES[2]

Check below to be considered for our Active Trader Services and discounted commissions if you plan on trading at least 36 times over a rolling 12-month period at Fidelity.

I plan to trade: ☐ 36–71 times ☐ 72–119 times ☐ 120(+) times

CASH MANAGEMENT FEATURES

The features below provide you ways to access the money in your Fidelity Account. For more information on these features, please visit www.fidelity.com/goto/checking. By selecting the features below, you are acknowledging that you have read and agree to the terms set forth in the Customer Agreement.

To Transfer Money Regularly to Your Account:

Fidelity Automatic Account Builder®

This service allows you to establish monthly or quarterly automatic purchases to your Fidelity Account from your bank account. There is a $100 minimum per purchase ($500 for Spartan® funds) and a $100,000 maximum per purchase. Adding this service also provides Money Line capabilities (see below for more information on Money Line).

I would like to automatically invest $_____ starting (Month/Day/Year) ☐☐-☐☐-☐☐☐☐

every ☐ Month or ☐ Quarter from my bank account to my ☐ Fidelity core account or to the following mutual fund:

_____
(Mutual Fund Name)

I would like to stop my regular investments in the fund(s) described above on (Month/Day/Year) ☐☐-☐☐-☐☐☐☐

Please attach a voided check from your bank to this application to provide routing information.

To Move Money between Your Fidelity Account and Other Accounts:

Fidelity Money Line®

This service allows you to electronically transfer money between your bank and Fidelity accounts without paying a fee to Fidelity. Your bank may charge a fee.

☐ Yes, I wish to establish Money Line.

Please attach a voided check from your bank to this application to provide routing information.

To Withdraw the Cash in Your Fidelity Account:

Checkwriting[3] ($2,500 account minimum)

This service allows you to write checks on the cash in your core account.

☐ Yes, I wish to establish checkwriting. Please sign and attach the checkwriting signature card located in this booklet and return with this application.

Fidelity BillPay®[1]

This service allows you to pay bills online directly from your Fidelity Account.

☐ Yes, I wish to establish BillPay. I understand that a monthly fee may be assessed for some customers. (Fidelity BillPay is not available on Custodial UGMA/UTMA or business accounts.)

Figure 11.1 *(continued)*

4 ACCOUNT FEATURES (CONTINUED)

Bank Wire

This service enables you to transfer money electronically from your Fidelity Account to your bank account using the Federal Reserve System. A fee of $15.00 may apply for each wire redemption from brokerage accounts.

Bank Information

Type of Account:

☐ Checking

☐ Money Market Deposit Account

☐ Savings (Passbook savings accounts are not eligible.)

Please complete the following bank information. Your bank may use different Bank Routing Numbers for Bank Wire transactions (processed through the Federal Reserve System) and Fidelity Money Line (Electronic Funds Transfer transactions processed through the Automated Clearing House system). **It is important that you obtain the appropriate Bank Routing Number for Federal Wire transactions directly from your bank.**

Bank Name

Name(s) on Bank Account

Name(s) on Bank Account

If the name(s) on your bank account does not exactly match the name(s) on your Fidelity account, signature guarantees from all account owners are required.

☐☐☐☐☐☐☐☐☐

Bank Routing Number (Please confirm with your bank.)

☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

Bank Account Number

☐☐☐-☐☐☐-☐☐☐☐

Bank Branch Phone Number

If your banking institution is not a member of the Federal Reserve you must obtain the following information from your bank. There may be a one-day delay in receiving a wire through a correspondent bank.

Name of Correspondent Bank

Your Bank Account's Name at the Correspondent Bank

☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐☐

Your Bank's Account Number at the Correspondent Bank

☐☐☐☐☐☐☐☐☐

Correspondent Bank Transit/Routing Number

For Further Credit/Additional Instructions (if applicable)

4 ACCOUNT FEATURES (CONTINUED)

Debit and Credit Cards:

Fidelity Visa® Gold Check Card[5] (daily debit)

This card is a debit card that can be used to withdraw cash at ATMs or to make purchases at locations wherever Visa is accepted. Each transaction is debited from the core account position of your brokerage account daily.

☐ Yes, I wish to be considered for the Fidelity Visa Gold Check Card, issued by PNC Bank Delaware.

☐ Yes, I would like to receive an additional card for joint owner.

Fidelity American Express® Gold Card[6] (deferred debit)

This card is a deferred debit card that can be used to make purchases at locations where American Express is accepted, as well as to access cash through ATMs. Purchase transactions are debited from the core account position in your brokerage account once a month, while cash withdrawals are debited daily.

☐ Yes, I wish to be considered for the Fidelity American Express Gold Card, issued by American Express Bank, FSB. (This card is only available on nonretirement individual and joint registrations and cannot be issued on Trust, Custodial UGMA/UTMA, or business accounts.)

☐ Yes, I would like to receive an additional card for joint owner

Fidelity Investment Rewards* MasterCard®** (credit)

This is a no annual fee credit card that allows you to earn 1.5% of eligible retail purchases charged to your card as cash rewards to add to your Fidelity Account. This card does not debit out of your Fidelity Account. MBNA, the issuing bank, will send a separate statement for this card. Please refer to the enclosed Investment Rewards Credit Card Program Disclosure Summary for rate, fee and other cost information. Also, for reference, please refer to the Fidelity Investment Rewards Program Guidelines that will accompany new credit card account materials.

☐ Yes, I wish to be considered for the Fidelity Investment Rewards® MasterCard® credit card, issued and administered by MBNA America Bank, N.A. I authorize that for the purposes of applying for this credit card, Fidelity may share with MBNA the following pieces of information (as available): name(s), address, phone number(s), Social Security number, occupation, annual income, date of birth and Fidelity Account number. I also acknowledge that I have read the enclosed Investment Rewards Credit Card Program Disclosure Summary for rate, fee and other cost information.

☐ Yes, I would like to receive an additional card for joint owner.

Fidelity WorldPoints℠ MasterCard®* (credit)

This is a no annual fee credit card that allows you to earn 1% of eligible retail purchases charged to your card as points that can be redeemed for travel or merchandise. This card does not debit out of your Fidelity Account. MBNA, the issuing bank, will send a separate statement for this card. Please refer the enclosed WorldPoints Credit Card Program Disclosure Summary for rate, fee and other cost information. Also, for reference, please refer to the WorldPoints Program Guidelines that will accompany new credit card account materials.

☐ Yes, I wish to be considered for the Fidelity WorldPoints℠ MasterCard® credit card, issued and administered by MBNA America Bank, N.A. I authorize that for the purposes of applying for this credit card, Fidelity may share with MBNA the following pieces of information (as available): name(s), address, phone number(s), Social Security number, occupation, annual income, and date of birth. I also acknowledge that I have read the enclosed WorldPoints Credit Card Program Disclosure Summary for rate, fee and other cost information.

☐ Yes, I would like to receive an additional card for joint owner.

[1] Subject to Fidelity's approval and may require a review of your credit history. Margin borrowing involves additional risks and is not suitable for all investors. By checking the box and signing this application, you acknowledge that you have read the margin agreement section of the Customer Agreement and agree to its terms. If applying for margin, Sections 1 and 2 must be completed in their entirety. **Not available on UGMA/UTMA, Estate, or other non-Trust Fiduciary accounts.**

[2] Active Trader Services requires Fidelity's approval and, if approved, eligibility will be reviewed periodically after enrollment. See commission schedule in the Supplemental Information booklet for details.

[3] All checks written will be reported on your Fidelity Account statement. Fidelity must have a signature card on file to establish this service.

[4] Schedule bills to be paid electronically from your Fidelity Account through **Fidelity.com**. The monthly fee is $6.95 and is waived for BillPay customers who trade 36+ times in a rolling 12-month period or maintain $100,000 or more in certain retail assets at Fidelity. See the Fidelity BillPay Service Agreement for complete details.

[5] ($5,000 account minimum) The Fidelity Visa® Gold Check Card is issued by PNC Bank, Delaware, with no annual fee. By checking the box, you authorize PNC Bank, Delaware to check your employment and credit history and to answer questions about their payment experience with you. You have read and agree to the important disclosures pertaining to this request contained in the accompanying Fidelity Customer Agreement. All transactions are deducted from your Fidelity core account daily. The Visa Gold Check Card is available to nonretirement accounts with individual, joint, or trust registrations only and **cannot be issued to Custodial UGMA/UTMA accounts.**

[6] ($5,000 account minimum) The Card, issued by American Express Bank, FSB is available to nonretirement accounts with individual or joint registration only and cannot be issued on Trust, Custodial UGMA/UTMA, or business accounts. By checking the box, you authorize Fidelity to release certain account information to American Express in order for American Express to evaluate your request for the Card. Evaluation of your request may involve a review of your credit, including requesting reports from consumer reporting agencies, and you hereby authorize American Express to request such information. You have read and agree to the important disclosures pertaining to this request contained in the accompanying Fidelity Customer Agreement. The Card provides up to 30 days' float on purchases before they are deducted from your core account (cash advances are debited daily).

Figure 11.1 *(continued)*

5 SIGNATURE (ALL OWNERS MUST SIGN THE APPLICATION)

Each owner and custodian/fiduciary must READ the separate Customer Agreement and SIGN this section in ink.

I hereby request Fidelity Brokerage Services LLC and National Financial Services LLC (collectively "Fidelity") to open a Fidelity Account in the name(s) listed as account owner(s) on this application.

- I acknowledge that I have been furnished with a copy of the Fidelity Account Customer Agreement and that I have read, understood, and agree to be bound by its terms and conditions as they are currently in effect and as they may be amended in the future. I am at least 18 years of age and of full legal age in the state in which I reside. I understand that, upon issuer's request in accordance with applicable rules and regulations, Fidelity will supply my name to issuers of any securities held in my account so I might receive any important information regarding them, unless I notify Fidelity.
- **I understand that the Customer Agreement and its enforcement shall be governed by the laws of the Commonwealth of Massachusetts.** It shall cover individually and collectively all accounts which I may open or reopen with Fidelity. It shall inure to the benefit of Fidelity's successors and assigns, whether by merger, consolidation, or otherwise. Fidelity may transfer my account to your successors and assigns, and this Agreement shall be binding upon my heirs, executors, administrators, successors, and assigns.
- I have received and read either the Prospectus or the Profile Prospectus for Fidelity Municipal Money Market Fund. If I received the Profile Prospectus, I understand that I may purchase shares of Fidelity Municipal Money Market Fund now or request to receive and review the Fund's full prospectus before I make a decision to invest in Fidelity Municipal Money Market Fund.
- I hereby authorize Fidelity, upon receiving instructions from me, to make payments of amounts representing redemptions by me or distributions payable to me by initiating credit or debit entries to the bank account (Bank) indicated on the attached "voided" check. I authorize and request the Bank to accept such entries from Fidelity, and to credit or debit, as indicated, my account at the Bank in accordance with these entries. I understand that Fidelity will not be liable for any loss, expense, or cost arising out of my instructions provided that it institutes reasonable procedures to prevent unauthorized transactions. I acknowledge that this authorization may only be revoked by providing written notice of revocation to Fidelity, in such time and manner as afford Fidelity and the Bank a reasonable opportunity to act upon it.
- I (We), the undersigned, hereby constitute and appoint Fidelity our true and lawful attorney to surrender for redemption any and all shares held in the above indicated accounts with full power of substitution in the premises. Fidelity will sell what we are instructed to and then wire the funds. Fidelity is hereby authorized and directed to accept and act upon any directions for redemptions of shares held in the above account from account owner who requests payment to be made to the bank account above. I (We) understand and agree that Fidelity will not be liable for any loss, expense, or costs arising out of any telephone request for redemption so long as Fidelity transmits the redemption proceeds to the bank account identified above. Fidelity reserves the right to cease to act as agents to the above appointment upon 30 days after written notice to the address noted on this form. I (We) further certify and agree that the above certifications, authorizations, and appointments in this document will continue until Fidelity receives the actual written notice of any change thereof.
- **If I am a U.S. person (including a U.S. resident alien), I certify under penalties of perjury that: (1) I am a U.S. person (including a U.S. resident alien) and the Social Security or Taxpayer Identification Number provided is correct (or that I am waiting for a number to be issued to me); and (2) I am not subject to backup withholding because: (a) I am exempt from backup withholding; or (b) I have not been notified by the Internal Revenue Service (IRS) that I am subject to backup withholding for failure to report all dividend and interest income; or (c) I have been notified by the IRS that I am no longer subject to backup withholding. (Cross out item 2 if you have been notified by the IRS that you are currently subject to backup withholding because you have failed to report all interest and dividends on your tax return.) If I am not a U.S. person (including a U.S. resident alien), I am submitting the applicable Form W-8 with this form to certify my foreign status and, if applicable, claim tax treaty benefits.**
- **The following clause referring to lending of securities applies only to those accounts eligible and approved for margin. I understand that UGMA/UTMA, estate, and other non-trust fiduciary accounts cannot use margin. I hereby authorize Fidelity to lend, hypothecate, or rehypothecate, separately, or with the property of others, either to yourselves or to others, any property you may be carrying for me on margin. This authorization applies to all my accounts you carry and shall remain in force until you receive written notice of revocation at your main office in Boston, MA.**

- **The Internal Revenue Service does not require your consent to any provision of this document other than the certifications required to avoid backup withholding.**

- **This account is governed by a predispute arbitration clause, which is found in Section 18 of the Customer Agreement. I acknowledge receipt of the predispute arbitration clause.**

X _____ SIGNATURE OF ACCOUNT OWNER — Date (month, day, year)

X _____ SIGNATURE OF JOINT ACCOUNT OWNER/CUSTODIAN/FIDUCIARY — Date (month, day, year)

Fidelity Investments is a registered trademark owned by FMR Corp. Accounts are carried with our affiliate, National Financial Services LLC, a member of the New York Stock Exchange and other principal exchanges. Fidelity Investments, P.O. Box 770001, Cincinnati, OH 45277-0036.

Please tell us where you heard about Fidelity's financial solutions:

☐ Newspaper ☐ TV ☐ Magazine ☐ Radio ☐ Friend/Referral ☐ Direct Mail/Email ☐ Web ☐ Fidelity Branch

FOR FIDELITY USE ONLY ☐ Cash ☐ Margin ☐ ATP Account # Assigned _____

Rep Name _____ Reg. Rep. Signature _____ Corp. ID _____ Date _____

Approving Manager's Signature _____ Date _____ Investor Center Number _____

Photo ID Type _____ Expiration Date _____ Second Photo ID Type _____ Expiration Date _____

Fidelity INVESTMENTS

388386 Fidelity Brokerage Services LLC, Member NYSE, SIPC BRK-APP-1104

Figure 11.2 The Supersheet, Part 1—The Share Activity Summary

Report: SHRPROOF

Summary of Share Activity for 03/15/03

Fund: 222 U.S. Growth and Income

Category	Posted to Shareholders	Unpaid Purchases	Paid and Waiting	Unsettled Liquidations	Net Outstanding	Accumulated Liquidations	Total Shares Outstanding
Beginning Balance	99,164,535.993	53,443.516	6,340.086	-208,420.403	99,015,896.192	257,819,660.699	356,835,556.891
Direct Purchase	11,758.049				11,758.049		11,758.049
Wire Order Purchase Placement		18,960.132			18,960.132		18,960.132
Wire Order Purchase Settlement		-19,879.422	19,879.422				
W/O transfer to Shareholder	8,116.482		-8,116.482				
Wire Order Liquidation Placement				-42,726.845	-42,726.845	42,726.845	
Wire Order Liquidation Settlement	-38,331.139			38,331.139			
Direct Liquidation	-12,829.034				-12,829.034	12,829.034	
SWP Liquidation							
Exchange In	16,635.869				16,635.869		16,635.869
Exchange Out	-25,937.277				-25,937.277	25,937.277	
Distribution Reinvest	1.894				1.894		1.894
Adjustments							
Fee Liquidations	-1.511				-1.511	1.511	
Daily Total	-40,586.667	-919.290	11,762.940	-4,395.706	-34,138.723	81,494.667	47,355.944
Ending Balance	99,123,949.326	52,524.226	18,103.026	-212,819.109	98,981,757.469	257,901,155.366	356,882,912.835

The Supersheet, Part 2—The Cash Activity Summary

Report: CASHPROOF

Summary of Cash Activity for 03/15/03

Fund: 123 Corporate High Yield

Category	Receipt $	Dealer Commission	Distributor Commission	CDSC	Tax Withholding	Fees	To/From Fund
Purchases							
Paid by Check	29,485.64	-1,007.80	-139.62				28,338.22
Paid by Wire	0.00	0.00	0.00				
W/O Paid	0.00	0.00	0.00				
NSCC Settled	63,013.01	0.00	-274.85				62,738.16
Exchanges In	2,000.00	0.00	0.00				2,000.00
Div - Batch	0.00						
Div - Online	-85.49						-85.49
Gain – Batch	0.00						
Gain – Online	0.00						
Cash Fee	0.00					0.00	
Total	94,413.16	-1,007.80	-414.47			0.00	92,990.89
Deposit to RPO	0.00						
Liquidations							
Direct	-217,832.16			0.00	-3,923.59	-7.50	-221,763.25
Shrs for Fees	0.00			0.00		-90.00	-90.00
SWP	-13,185.58			0.00	-380.37	0.00	-13,565.95
W/O Settle	0.00			0.00	0.00	0.00	0.00
NSCC Settled	-245,806.01			0.00	0.00	0.00	-245,806.01
Cash Adjustmt	0.00						0.00
Exchanges Out	-32,084.17			0.00	0.00	0.00	-32,084.17
Div Reclaim	0.00						0.00
Total	-508,907.92			0.00	-4,303.96	-97.50	-513,309.38
Cash Distributions							
Dividend	-320.99				0.00		-320.99
Gain	0.00				0.00		0.00
Net Cash	-414,494.76	-1,007.80					

Figure 11.2 *(continued)*

The Supersheet, Part 3—Notes

The supersheet provides a capsule summary of a day in the life of a fund. The share activity summary, or share proof, summarizes all the ins and outs of fund shares resulting from the day's shareholder activity, and its effect on the fund. In the example here, the fund started the day having issued 356,835,556.891 shares since its inception. Of these, 99,015,896.192 were currently outstanding (i.e., owned by shareholders), while shareholders had bought and previously redeemed another 257,819,660.699 shares.

The U.S. Growth and Income Fund did not have a good day on March 15. Shareholders purchased roughly 31,000 additional shares, but redeemed roughly 55,000 shares, for a net redemption of about 24,000 shares. Both purchases and redemptions came directly from shareholders (direct purchases and direct liquidations), and through brokers (wire order purchase and liquidation placements). In addition, shareholders exchanged about 10,000 more shares out of the fund than they exchanged into it. Other activity was minimal. (Settlements of wire order trades do not affect the number of outstanding shares, but merely shift them from one category to another.) So, the fund ended the day with 10,000 fewer outstanding shares.

The cash activity summary, or cash proof, depicts the cash effects of the shareholder activity for the day. The Corporate High Yield Fund also had a rough day on April 22. Cash flowing in, mostly from direct purchase transactions, or settlement of wire order trades, totaled $94,413.16, of which a thousand or so went to pay commissions. Cash flowing out—to pay direct and SWP liquidations, to settle wire order liquidations, and to settle exchanges out—totaled $508,907.92. There was little dividend or capital gain activity that day. So, the fund had a net cash outflow of $420,318.49 for the day.

Figure 11.3 Example of trade confirmation.

ACCOUNT CONFIRMATION

SCUDDER

ACCOUNT NUMBER 9963537359-5

This statement confirms activity on 05/15/98

Page 1 of 1

Scudder Preferred Investor Services
Priority access to our most experienced investor representatives

Fund Information • Transactions • Account Updates

Please call a *Preferred Investor Services Associate* at:
1-800-553-6360

Scudder Investor Services, Inc., Distributor, confirms any purchases as agent.

DAILY TRANSACTION SUMMARY

DATE	TRANSACTION	DOLLAR AMOUNT	SHARE PRICE	NUMBER OF SHARES	TOTAL SHARES OWNED
GROWTH AND INCOME FUND					
05/15/98	AUTOMATIC PURCHASE -ACH	$150.00	$30.22	4.964	31.431
	VALUE AS OF 05/15/98	$949.84			

Source: Scudder Investments

Figure 11.4 Year-to-Date Statement—January 1, 2004 through March 31, 2004. Current Year Account Value

Account Holder, Fund Name and Account Number	Opening Value on 1/1/2004 ($)	Number of Shares on 3/21/2004	Price Per Share ($)	Value on 3/31/2004 ($)
Tax-Exempt Fund-A **753**	1,061.20	78.390	13.74	**1,077.08**
MA Tax-Exempt Fund-A **775**	2,856.47	354.914	8.16	**2,896.10**
Mid Cap Value Fund-A **719**	2,753.36	115.107	25.13	**2,892.64**
Mid Cap Value Fund-A **719**	274.31	11.468	25.13	**288.19**
Trust Company Rollover IRA Mid Cap Value Fund-A **719**	45,435.49	1,899.477	25.13	**47,733.86**
Total Value	**52,380.83**			**54,887.87**

Year-to-Date Summary of Activity

The *"Beginning value or initial investment"* column captures either the value of your account on January 1st of this year or the amount of your initial investment for accounts opened after January 1st of this year. *Net change in value* is the increase or decrease in the value of your shares, plus any dividends and capital gains reinvested, minus any sales fees.

Account Holder, Fund Name and Beginning Date	Beginning Value or Initial Investment	Total Invested or Transferred In after Beginning Date	Total Withdrawn or Transferred Out after Beginning Data	Net Changes In Value ($)
Tax-Exempt Fund-A 1/1/2004	1,061.20	—	—	15.88
MA Tax-Exempt Fund-A 1/1/2004	2,856.47	—	—	39.63
Mid Cap Value Fund-A 1/1/2004	2,753.36	—	—	139.28
Mid Cap Value Fund-A 1/1/2004	274.31	—	—	13.88
Trust Company Rollover IRA Mid Cap Value Fund-A 1/1/2004	45,435.49	—	—	2,298.37

Figure 11.4 *(continued)*

Your Investment Mix by Fund Type

Fund Type		Fund Type	
Contrarian	—	Specialty	—
Tax Free Income	79%	Taxable Income	—
Growth	—	Value	93%
International	—		
Money Market	—	**Total**	100%

Distributions paid year to date

Account Holder, and Fund Name	Dividend and Short-Term Capital Gains ($)	Mid-Term Capital Gains Taxable at 28% ($)	Long-Term Capital Gains Taxable at 20% ($)	Total Distributions ($)
Tax-Exempt Fund-A	11.26	—	—	11.26
Columbia MA Tax-Exempt Fund-A	29.15	—	—	29.15
Mid Cap Value Fund-A	—	—	—	0.00
Mid Cap Value Fund-A	—	—	—	0.00
Trust Company Rollover IRA Mid Cap Value Fund-A	—	—	—	0.00
Totals	**40.41**			**40.41**

Figure 11.4 *(continued)*

Fund Performance

The table below shows average annual total returns, adjusted for maximum applicale sales charges, as of 3/31/2004.

Fund Name and Share Class Inception Date	1 Year		5 Years		Lesser of 10 Years (or life)	
	Without Sales Charge	With Sales Charge	Without Sales Charge	With Sales Charge	Without Sales Charge	With Sales Charge
Tax-Exempt Fund-A, 11/21/1978	6.50%	1.44%	5.06%	4.04%	6.03%	5.52%
MA Tax-Exempt Fund-A, 4/10/1987	5.93%	0.90%	6.14%	5.11%	6.54%	6.02%
Mid Cap Value Fund-A, 1/1/1949	40.94%	32.84%	9.98%	8.69%	14.30%	13.62%

The fund performance shown above may be different than your personal investment experience which is dependent upon your actual holding period in the Fund(s) and whether or not you have paid sales charges during the periods shown.

Performance data quoted represents past performance and current performance may be lower or higher. Past performance is no guarantee of future results. The investment return and principal value will fluctuate so that shares may be worth more or less than their original cost. Please visit www.columbiafunds.com for daily and most recent month-end performance.

Performance reflects your share class only and is based on the inception date of the oldest share class. See "Information about fund performance" on the reverse side of this statement for details with respect to the calculation of returns which include periods prior to share class inception dates.

Figure 11.4 *(continued)*

Items for Your Attention
Working with a financial advisor can enable you to pursue your goals with added benefit of an experienced professional on your side. Remember that your partnership with a financial advisor represents a long-term relationship—with your financial success as the top priority.

Details of Activity
Tax-Exempt Fund-A
753

Date	Description	Amount ($)	Price Per Share ($)	Number of Shares This Transaction	Number of Shares You Own
Jan 1	**Opening Value**	1,061.20	13.68		77.573
Jan 30	Dividend Reinvest	3.77	13.69	0.275	77.848
Feb 27	Dividend Reinvest	3.77	13.92	0.271	78.119
Mar 31	Dividend Reinvest	3.72	13.74	0.271	78.890
Mar 31	**Ending Value**	**1,077.08**	**13.74**		**78.390**

New policy: medallion guarantee
In an effort to prevent unauthorized security transfers, effective immediately, the company will only accept signature guarantees from medallion guarantors meeting the STAMP2000 requirements. This process protects you by making it more difficult for unauthorized individuals to take your money through securities forgery and fraud.

An easy way to be sure that you are receiving a medallion guarantee that is STAMP2000–compliant is to check for a barcode and green ink on the medallion guarantee. If the medallion guarantee does not have both of these features, it is most likely outdated and will be rejected by the company. Please also note that a notary public stamp is different from a signature guarantee and is not acceptable. You may obtain a medallion signature guarantee from most large banks or brokerage firms. If you have any questions about the new policy, please call a shareholder services representative.

Figure 11.4 *(continued)*

2004 IRA contribution limits
This is just a friendly reminder that in 2004 you may make an IRA contribution up to $3,000, or up to $3,500 if you are age 50 or older. Under the new tax legislation, annual maximum IRA contributions will gradually increase until tax year 2008.

Review your accounts online
Check your account balances, review transaction history, research fund prices and performance, request fund literature and more on the web.

Manage your accounts online
Transaction capability: Purchase, exchange or redeem shares in the privacy of your own home. You can also change your existing plan options or change your distribution options.
Other services: Have a question? You can also submit a change of address or request a checkbook without picking up the phone.

MA Tax-Exempt Fund-A COMAX
775

Date	Description	Amount ($)	Price Per Share ($)	Number of Shares This Transaction	Number of Shares You Own
Jan 1	**Opening Value**	2,856.47	8.13		351.349
Jan 30	Dividend Reinvest	9.87	8.12	1.216	352.565
Feb 27	Dividend Reinvest	9.63	8.26	1.166	353.731
Mar 31	Dividend Reinvest	9.65	8.16	1.183	354.914
Mar 31	**Ending Value**	**2,896.10**	**8.16**		**354.914**

Mid Cap Value Fund-A COLGX
719

Date	Description	Amount ($)	Price Per Share ($)	Number of Shares This Transaction	Number of Shares You Own
Jan 1	**Opening Value**	2,753.36	23.92		115.107
Mar 31	**Ending Value**	**2,892.64**	**25.13**		**115.107**

No transactions took place during this period.

Figure 11.4 ***(continued)***

Mid Cap Value Fund-A COLGX
719

Date	Description	Amount ($)	Price Per Share ($)	Number of Shares This Transaction	Number of Shares You Own
Jan 1	**Opening Value**	274.31	23.92		11.468
Mar 31	**Ending Value**	**288.19**	**25.13**		**11.468**

No transactions took place during this period.

ROLLOVER IRA
Mid Cap Value Fund-A COLGX
719

Date	Description	Amount ($)	Price Per Share ($)	Number of Shares This Transaction	Number of Shares You Own
Jan 1	**Opening Value**	45,435.49	23.92		1,899.477
Mar 31	**Ending Value**	**45,733.86**	**25.13**		**1,899.477**

No transactions took place during this period.

chapter 12 | The Transfer Agent, Part 2—Customer Service

Service quality…is a critical component of customer retention that has bottom line implications. All other things being equal, mutual fund companies that invest in improving customer service should experience an increase in shareholder referrals and investments.

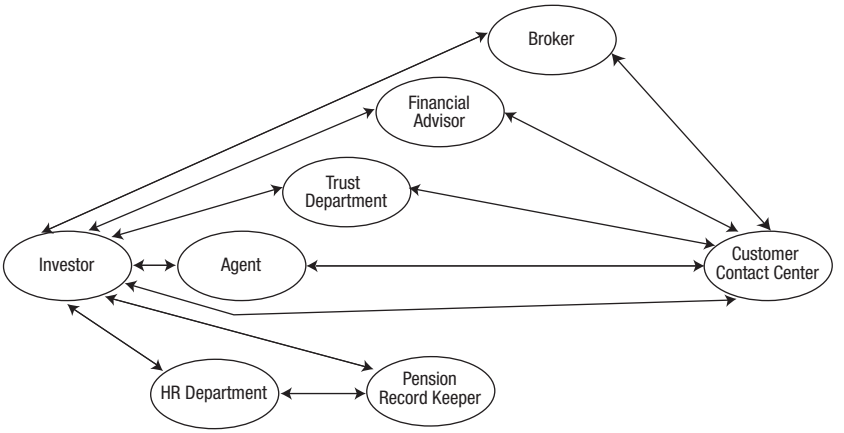
– Investment Company Institute (1994)[1]

The transfer agent back office, described in Chapter 11, remains largely invisible to most investors, except for the checks, confirmations, and statements they might receive from it. But shareholders typically get more for their service fees than just these back-office record-keeping activities. Every fund complex gives its clients access to service representatives to ask questions, get information about their accounts, register complaints, and request transactions. The transfer agent fee buys service as well as record keeping for shareholders and their agents.

Every fund complex has a group that specializes in customer service. For some fund companies, this group is contained within the transfer agent. Other fund companies separate the groups that provide customer service from the back-office record keepers. The definition of customer varies across fund groups as well. The customer service groups for directly marketed funds deal mostly with the shareholders; those for broker-distributed funds provide service for the brokers as well as the shareholders. For both types of fund groups, other agents, such as pension administrators and bank trust departments, play an ever larger role and require special service. Figure 12.1 summarizes the relationships among investors, their intermediaries and agents, and the fund company's customer service group.

Many investors simply contact the fund directly via mail, the toll-free telephone number, the Internet, or, in a few cases, by visiting an investor center. Investors who have purchased their shares directly from a no-load fund company with no intermediary assistance have no alternative to contacting the

Figure 12.1 How investors contact the fund complex.



fund directly for service. Investors who go through intermediaries (e.g., brokers, bank trust departments, financial advisors, insurance agents) to buy shares sometimes contact the fund company directly for service, but often go instead to these intermediaries. The broker, trust officer, financial advisor, or agent then calls or writes to the fund's service center.

When the investor is part of an omnibus account, the intermediary provides all of the customer service. Defined contribution plan participants who invest in mutual funds contact either their company's human resources department or the plan's record keeper, not the fund's service group, for information or assistance. Fund supermarket clients do the same. In these cases, the fund's transfer agent doesn't know anything about them individually, so the fund's customer service group cannot help them with anything but general questions about fund characteristics or rules. The fund's service group deals with the pension record keeper or the firm running the fund supermarket.

How Mutual Fund Investors Receive Service

The National Investment Company Service Association (NICSA) conducts a survey each year of shareholders of a sample group of mutual funds to explore shareholder service trends.[2] Table 12.1 shows the means of communications the shareholders who participated in 2004 preferred for contacting their fund companies. As Table 12.1 shows, they strongly preferred speaking with a person on the telephone, followed by sending mail, through a Web site, interacting with a voice response unit, and sending e-mail messages and faxes. Many industry observers believe this preference for the telephone will eventually give way to increasing use of the Internet.

Table 12.1 How Do You Typically Contact Us?

	2004	2003	2002
By phone to our representative	58%	62%	59%
By mail	29%	30%	29%
By phone to your broker	15%	18%	18%
Through the Web site	18%	18%	14%
By phone to our automated line	11%	15%	12%
In person	8%	8%	9%
By e-mail	7%	8%	5%
By fax	1%	4%	1%
Other	1%	3%	2%

Source: NICSA 2004 Mutual Fund Shareholder Satisfaction Survey Report, October 2004

The survey concluded that older individuals are more likely to contact their fund company by calling their broker, while younger individuals are more likely to communicate by mail, through a Web site, automated line, or by e-mail. In addition, load customers are significantly more likely to communicate by calling their broker or in person, while no-load customers are more likely to communicate by phone, mail, Web site, or e-mail.

Telephone to a Customer Service Representative

As Jack Brennan, CEO of The Vanguard Group, once put it, "Firms like Vanguard in the United States were virtually created by the 800 number."[3] Behind the 800 numbers, however, stands an army of customer service representatives (CSRs) to answer the questions, take the transaction requests, and resolve the problems. While the ratio of service representatives to shareholders varies widely by distribution channel, directly marketed funds often find that they need a CSR for every 7,000 to 10,000 shareholders. Large fund groups such as Fidelity, Vanguard, and T. Rowe Price have hundreds of CSRs. The special management issues involved in assembling and retaining this work force are discussed in the section below on staffing the customer contact center.

Telephone to a Voice Response Unit

As ubiquitous as voice response units (VRUs) have become these days, it is easy to forget that mutual fund service providers were among their first and heaviest users. A VRU (or, as it is sometimes termed, an Interactive Voice Response unit, or IVR) combines a telephone interface on one side and com-

puter interface on the other. The telephone interface side speaks to the caller offering a set of menus with service options. The caller selects options either by keying on the telephone touch-tone keypad or speaking to a speech recognition processor. The computer side of the VRU acts on these selections by retrieving and speaking data (such as fund NAV or account balance), or by offering further options.

The excerpt from the MFS VRU menu (at the end of the chapter) shows a typical set of functions that fund groups offer their shareholders. VRUs serve primarily to handle inquiries, such as requests for fund prices and yields and account balances and values. Most fund groups allow callers to order literature (e.g., prospectuses) and duplicate statements via the VRU. The cost of handling a call via VRU is a small fraction of the cost of providing the same service via a human operator—a call that costs five dollars or more for a human representative to handle typically costs only fifty cents when handled by the VRU.[4] Many fund groups (indeed, many organizations across different industries) use the VRU as the front end through which every caller must go. Even if human interaction is eventually required, the VRU can get the caller's identification and determine the nature of the caller's request, to reduce the time required for a CSR to service the call.

Correspondence

Shareholders still send a great deal of mail to their fund companies, and the customer service units still send many letters to the shareholders. The correspondence unit may be part of the customer service group, or it may be part of the transfer agent back office. In its normal processing cycle, the transfer agent back office handles incoming mail that orders a standard transaction (e.g., a redemption or exchange). Mail that poses a question or complaint, or is not correct or complete, goes to staff that specialize in customer correspondence.

Much correspondence deals with NIGO (not in good order) transaction requests received from investors and agents. If a shareholder or broker sends a request that the transfer agent cannot act upon because of some flaw (such as a missing signature guarantee, an incomplete application, or incompatible account option choices), the correspondence unit will send a letter explaining the problem and requesting clarification. Each correspondence unit maintains a battery of letter templates tailored for common NIGO situations. They plug in the particulars such as name and address, and word processing software generates the letter.

Fund companies find preparing and sending correspondence to be one of their more expensive service functions. PricewaterhouseCoopers' studies

of mutual fund transfer agent expenses conducted in the late 1990s found that sending a canned letter (i.e., using a template) costs an average of $5.00 per letter, while preparing and sending a completely customized letter averages over $35.00. Fortunately, only a small fraction of shareholder interactions require correspondence, and over 90 percent of that correspondence can be handled with canned letters.

Broker or Other Agent

A shareholder serviced by an agent—broker, trust officer, financial advisor, record keeper—may contact the agent instead of the fund company. Often the agent can handle the request without contacting the fund. Many brokerage firms have direct access into the funds' transfer agent systems, so that they can check shareholder records directly. In addition, brokers, fund supermarkets, and pension record keepers often do much of the detailed shareholder accounting on their own systems, so that the investor must deal with them for many account-related matters.

Of course, the agent must sometimes turn to the fund's service center to respond to an investor's request. Fund groups that sell through agents typically devote portions of their service unit to agent requests. Load funds typically have a "broker desk" in the customer contact center. Fund groups in general often segregate their service functions according to the groups they handle—financial advisors, pension record keepers, bank trust departments, and so on.

Walk-In Centers

Some fund complexes maintain storefront offices, or walk-in centers, at which investors can interact directly with a representative. Fidelity, for example, maintains a nationwide network of branches, but these house Fidelity's brokerage business as well as the funds. Mutual fund companies that do not also offer brokerage services seldom have more than one walk-in center, and this typically coincides with a major operational site, such as the firm's headquarters.

As Table 12.1 suggests, relatively few investors choose this route to conduct business with their funds. The move toward electronic business threatens to make the walk-in centers even less important. In June 1999, for example, the Scudder group of no-load funds announced that it would shut down its five walk-in offices, and focus instead on electronic service via the Internet. As one Scudder executive explained it, "Direct physical distribution of mutual funds no longer has much of a future. Instead, there's a magical new world around e-commerce."[5]

E-mail

In the late 1970s, a group of computing pioneers created the ARPAnet, the earliest forerunner of the Internet, to allow users across the United States to share the scarce resources that defense and research computing centers then represented. As soon as the ARPAnet became operational, however, its users discovered what they really wanted to do with it—send and receive electronic mail (e-mail). Throughout the history of computer networking, e-mail has been an enduringly popular application, and it represents one of the most commonly used functions on the Internet today.[6]

Most fund groups provided a means for their investors to send them e-mail as one of the earliest features on their Web sites. Currently, e-mail still accounts for a relatively small fraction of customer contacts for fund companies, although history suggests that this will grow as e-business via the Internet becomes more widespread. As early as 1998, Fidelity and Vanguard were receiving several thousand e-mail messages per week, and had special staff devoted to responding to them.[7]

Recently, many fund groups have begun to offer customer statements (as well as annual and semiannual reports and tax statements) via e-mail. The high cost of printing and mailing statements makes them an attractive candidate for electronic distribution. However, securities laws make it more difficult than it would appear at first glance to use the Internet to deliver statements. A fund group using this approach must request the shareholder to opt out of receiving the information by mail, be able to ensure that the information is protected and that it is actually received by the shareholder, and must make it available for online access for a reasonable period. For example, Fidelity, which announced its online statement program in mid-1999, said that it would maintain up to 16 months of historical statements online.[8] Most shareholders are not electing out of mail, but brokers and dealers are.

The NICSA Shareholder Satisfaction Survey concluded that automated access via the Internet to obtain account information continues to gain acceptance year after year.

The Mutual Fund Customer Contact Center

Until recently, everyone used the term *call center* to refer to the organization that deployed customer service representatives to take telephone calls from investors and their agents. Perhaps this phrase should be retired in favor of the more general term *customer contact center*. "Call" implies the use of a telephone, but investors and agents today may interact with their fund's support functions via fax, e-mail, or other Internet communications. The most advanced contact centers create an integrated queue of requests—telephone

calls, e-mails, Web requests for callback—that customer service representatives handle according to their priorities.

Each fund group either maintains a customer contact center of its own, or contracts with a third party to provide the function. In many cases, fund groups that outsource their transfer agent back-office functions perform investor service from their own, internal contact centers. This reflects the widespread belief that the quality of this visible service has competitive implications. The back-office functions, by contrast, must be performed correctly, but they offer little opportunity for the fund to differentiate itself from the competition.

Among the 483 funds included in the 1997 ICI study of transfer agent costs, 22 percent used hybrid transfer agents, with some functions outsourced (usually back-office) and some performed internally (usually customer contact).[9] Only 13 percent were completely external—that is, they had third-party providers handle customer service as well as transfer agent back-office functions. For the remainder, the management company performed all transfer agent and customer service functions internally. The fact that 87 percent of the funds in this survey had the management company perform the customer service functions internally reflects the importance that fund groups attach to this function. In its 1998 study of customer retention, Strategic Insight maintained that shareholders who own a fund for two years "bond" to the fund during that time, and become less likely to sell the fund even when performance declines.[10] One might debate the role that good customer service plays in establishing the bond, but certainly poor service will drive customers away, making the bonding impossible.

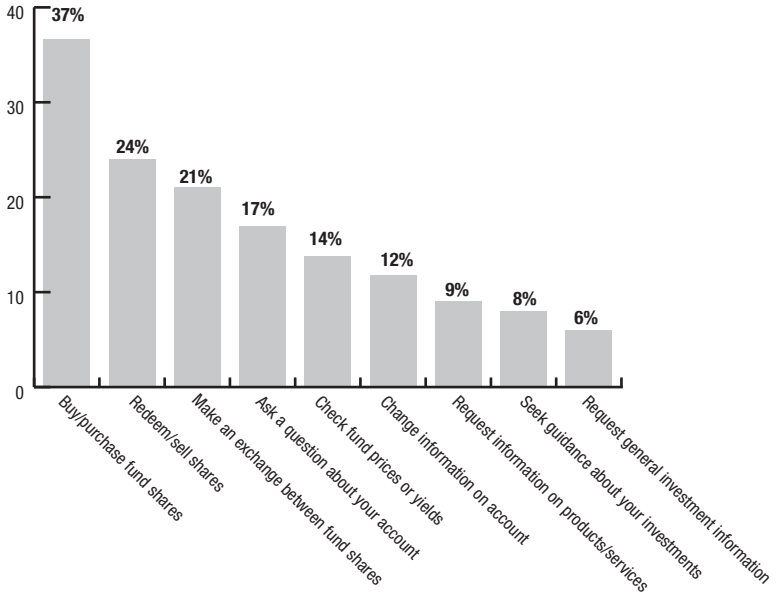
Contact Center Functions

Figure 12.2 indicates the results of the NICSA 2003 Mutual Fund Shareholder Satisfaction Survey regarding the purpose of a shareholder's most recent contact with a fund family. Since investors often make one call to accomplish several things (e.g., change my account options, and do this exchange, and mail me a duplicate statement), the survey estimates that contact centers spend their time addressing the following shareholder inquiries:

- Transactions—51 percent
- Fund performance—21 percent
- Fund characteristics—15 percent
- Account maintenance—10 percent
- Problems—3 percent

Nevertheless, this breakdown represents a cross-section of what customer contact centers do.

Figure 12.2 Purpose of shareholder contact with a fund family (multiple responses accepted).



Source: NICSA 2004 Mutual Fund Shareholder Satisfaction Survey

Fund Level Inquiries

Many investors call (or write or e-mail) to find out something about the funds—the NAV, the dividend rate and schedule, rules for investing, options offered, the investment style, the historical performance, and an endless list of other things. These requests often come from investors who are not already shareholders.

Most fund groups put fund-level information on their Web sites as one of their first offerings. The SEC ruled in 1996 that the prospectus delivery required before an investor could purchase shares in a fund could be done via download, as long as the prospectus was materially the same as the printed version. Today, almost all fund literature is available on the fund groups' Web sites. Nevertheless, CSRs continue to spend much of their time answering fund-level questions posed by curious or bewildered investors.

Literature Requests

Every fund group produces many pieces of literature, sometimes called collateral material. Both investors and agents contact the fund service centers

Off the Wall: The Things CSRs Have to Handle

In 1993, the *New York Times* ran a Sunday-edition article[11] about T. Rowe Price's call center, describing how the firm's 300 young phone representatives strove to give the fund group a "friendly, trustworthy voice." In the article, it listed some of the challenging situations the phone reps had to handle, along with the recommended responses.

SITUATION:

Dozens of callers dial zero when they should have dialed the letter "O," and get T. Rowe Price when what they were really trying to do was order a kit advertised on television to help them market their bizarre inventions, the phone number for which was almost identical to T. Rowe Price's.

RECOMMENDED RESPONSE:

Make nice with them; they might be current, or potential, customers.

SITUATION:

A caller asks for a prospectus for every single one of T. Rowe Price's 45 funds.

RECOMMENDED RESPONSE:

Offer to send summaries or a sample—anything but the whole truckload.

SITUATION:

An investor insists that a couple of weeks ago he absolutely did not move his money into a fund that has since plunged.

RECOMMENDED RESPONSE:

Politely offer to play back a tape of the call.

SITUATION:

Lloyd Bentsen (then a Texas senator, and later U.S. Treasury secretary) can't locate a substantial account.

RECOMMENDED RESPONSE:

See if it's registered under the name of his bank. It is.

SITUATION:

One caller wants to carry his complaint to the top, and demands to speak to Mr. Price himself.

RECOMMENDED RESPONSE:

Say, "Sorry, sir. He's dead. Would you like to speak with a supervisor?"

to order these materials: prospectuses, statements of additional information, account applications, fund reports, guides to investing, and so on. These requests come in via the CSRs, the VRU, the Web site, e-mail messages, and letters; the fund company mails the appropriate materials in response, typically within one or two days. Literature fulfillment—the process of capturing and servicing these requests—is complex and expensive enough to have spawned a niche service business of its own, described in Chapter 13.

Account Level Inquiries

Often the shareholders or their agents call to find out something specific about an existing account, such as the current balance or value, what price a trade was processed at, or whether a requested action has been completed. Providing this personal financial information requires the CSR (or VRU or Web site) to have access to the transfer agent system's data. It also requires security—a fund cannot divulge personal financial information to anyone other than the shareholder or authorized agent. CSRs ask callers for their account numbers, and then for things like their social security numbers and addresses to verify identity. For VRU or Web site access, funds typically require a requestor to provide an identifier (often called a personal identification number, or PIN) along with a password to verify that the individual has authority to get the requested information.

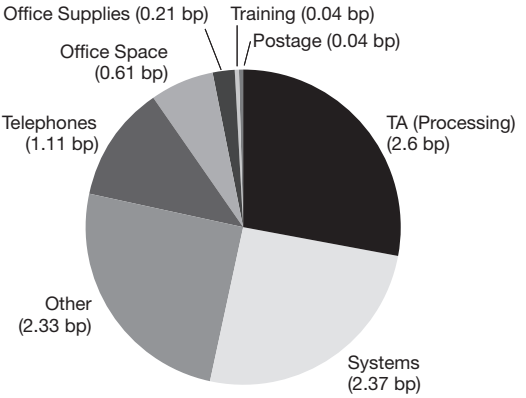
Transaction Requests

Investors and their agents may request financial transactions, typically redemption or exchange trades. They may also request nonfinancial transactions, such as changes to account characteristics or options. Transaction entry requires the same or even more stringent levels of security as personal financial information inquiry. In most cases, for example, fund groups only remit the proceeds of large redemption transactions ordered via telephone, VRU, or electronic means to an address established before the transaction was ordered (such as the address of registration).

Figure 12.3 shows a breakdown of the costs that fund groups incur in deploying their contact centers. Staffing stands out clearly as the most costly component. This reflects shareholders' preferences for talking with a person whenever they have anything other than the most straightforward inquiry. It also highlights a powerful motivation that fund groups have for diverting service functions to the Internet. If customers serve themselves on the Internet, the fund company can reduce the number of staff otherwise needed to answer the phones, and, in turn, reduce the overall cost of providing service.

Figure 12.3 Cost structure of a typical mutual fund contact center.

Expense Ratio by Category (Basis Points)



Source: National Quality Review, Inc., 2004 Financial Services Industry Study

Staffing the Contact Center

To most shareholders, the voice that speaks for their fund is that of a college graduate in his or her early twenties, holding down an entry-level job as a customer service representative. In early 1999, for example, T. Rowe Price's CSRs at its Tampa facility averaged 25 years of age.[12] Few individuals remain in this demanding job for more than three years. CSRs typically field from 50 to 75 calls per day, all of which are recorded for possible later review, and many of which involve less-than-friendly shareholders or brokers. Most CSRs view it as a great place to break into the business, but not one they'd want to stay in for very long.

Keeping an adequate supply of qualified staff poses an ongoing challenge for most fund companies. Over the past ten years, the job has clearly grown more difficult. Fund groups have successfully diverted an increasingly large portion of investors' simple requests to voice response units and Web sites, leaving the complex requests for the CSRs to handle. In the late 1990s, the tight labor market in the United States compounded the problem. Thus finding, hiring, and training CSRs is a never-ending battle for most mutual fund service organizations.

Many have turned to sites in the South, the West, and the Southwest to find new pools of CSR candidates. Fund companies have established customer contact centers in Tampa, Scottsdale, San Antonio, Albuquerque, Colorado Springs, Charlotte, and other cities not normally considered to be mutual fund centers.

In these cities they have found pools of college graduates they can hire at a reasonable cost. Fund companies also find that they are more likely to hang onto the CSR they hire in Albuquerque or San Antonio than the one they hire in Boston, where the presence of a half dozen large fund centers makes employees very mobile.[13]

Training and Licensing

All CSRs undergo extensive training, sometimes as many as 12 weeks, before they go onto the telephones with customers. Many of them are licensed as well. Selling mutual funds requires an NASD Series 6 (Investment Company/Variable Contracts Representative) license. While some groups, particularly those distributed by brokers, argue that accepting a purchase order over the phone from an investor does not represent selling, some firms take a conservative approach and use Series 6–licensed CSRs. Others compromise and use unlicensed CSRs to handle calls that clearly do not involve share purchases, but require them to transfer the caller to a licensed CSR who handles any purchase-related matters. In addition, a contact center that uses Series 6–licensed CSRs needs at least some supervisors who hold the NASD Series 26 (Investment Company/Variable Contracts Principal) license to oversee them.

Licensing the CSRs and supervisors is costly. Both the training needed to pass the NASD exam and the annual registration fee add to the costs of running the center. In addition, staff members who have obtained their licenses generally command higher salaries than unregistered staff members—10 to 15 percent higher is typical.

Dealing with Volume Fluctuations

Mutual fund customer contact centers can't just staff for a "normal" volume level, either. The frequency with which shareholders contact their funds varies enormously due to both seasonal and cyclical effects:

- *Seasonal effects*. Tax considerations drive much shareholder activity. As a result, funds experience much higher volumes of calls, letters, and transaction requests from December through the end of tax season in April than during the rest of the year. The days approaching April 15, the deadline for making contributions to IRA accounts, are particularly hectic as shareholders rush to get their transactions in under the wire.
- *Cyclical variations*. Visible and upsetting events in the capital markets, such as dramatic stock market declines, the Mexican economic crisis, or the Orange County default, drive call volumes up. Most industry observ-

The (Swiss) Army at Valley Forge

Answering shareholder calls during significant market events has always posed a challenge for mutual fund service centers. In the spring of 1987, a crash in the bond market prompted a deluge of calls to the fund companies, as investors sought to redeem or exchange their bond fund holdings, or simply to get information. Many fund companies found themselves overwhelmed by this flood of calls, and service levels plummeted as calls went unanswered.

The Vanguard Group, located a few miles from Valley Forge, Pennsylvania, where George Washington and the Continental Army spent the harsh winter of 1777, was among the fund groups overwhelmed by the spike in call volume. Unacceptable, said Vanguard management. "Not getting an answer from a mutual fund company is the equivalent of a line of people waiting outside a bank to retrieve their money and not being able to get it,"[14] said Jack Brennan, then second in command at Vanguard. Brennan and CEO John Bogle took immediate steps to make sure it wouldn't happen again—they established a contingency backup force they called the Swiss Army.

The Swiss Army program at Vanguard required everyone, from Bogle and Brennan on down, to be trained for telephone service, to put in at least four hours per year on the phones, and to drop everything to staff the phones in time of crisis. Bogle explained the genesis of the name in a speech in June 1987. "Since 1515, Switzerland has been content to let the great powers of Europe fight their own wars and pay the terrible price involved. It has maintained its neutrality not by having an army, but by being an army."[15] Like Switzerland, all of Vanguard would be an army of reserves, available to take to the front lines when an emergency arose.

The bond market problems of the spring of 1987 paled by comparison to the stock market crash that occurred a few months later in October of that year. On Black Monday, October 27, the Dow plunged 554 points, the largest single-day decline in history. Mutual fund shareholders rushed to the telephones. Many fund groups were again overwhelmed, but not Vanguard. On Monday as the market plunged, Vanguard raised the red-and-white Swiss flag at its headquarters, signaling the mobilization of the Swiss Army. Hundreds of managers, including Jack Brennan, went to the telephones, and kept the average wait time for callers to within Vanguard's target of fifteen seconds, despite receiving 75,000 calls on Tuesday, October 28.[16]

Vanguard has continued to rely on the Swiss Army as a low-cost way to handle peaks in call volumes or cope with incidents like ice storms that kept many of the regular telephone associates from getting to work. Consultants and others that work with Vanguard know there is always a chance that a meeting scheduled with a Vanguard manager might have to be rescheduled because of the preemptive call of the Swiss Army.

ers believe that mutual fund shareholders, by and large, do not overreact to such events by inappropriately rushing to sell their holdings. Nevertheless, many shareholders do contact their funds when such events occur, often seeking nothing more than information and reassurance.

Because mutual fund contact centers experience such highly variable volumes, staffing for optimal coverage is difficult. Fund companies use several different approaches to cope with this problem:

- Fund contact centers often use temporary employees during the peak seasonal periods. Strong Capital Management, for example, has been a leader in using part-time investor service specialists to handle volume fluctuations in its Milwaukee center, offering on-site day care and other amenities to attract and retain experienced staff.
- They may time their hiring to acquire new employees just as the busy season starts. PFPC, a third-party service provider, has used this strategy, trusting business growth and normal attrition to prevent an overstaffed situation once tax season is over.
- Some fund companies partially outsource contact handling to a third-party provider for peak cyclical periods. For example, BFDS, a third-party transfer agent, handles overflow calls for a number of its clients i.e., calls that the client's internal contact center can't get to in time. This partial outsourcing solution can also provide around-the-clock coverage. The fund company's center fields the calls that come in during normal business hours, and the overflow site handles the calls that come in during the remaining hours.
- Finally, many companies adjust internally, borrowing staff from other areas, and working CSRs longer hours during crunch times. Vanguard has formalized this practice with its Swiss Army program that can divert staff from other functions at a moment's notice to handle temporary overloads in the contact center.

Customer Contact Center Technology

Figure 12.3 illustrates the average expense (basis points) for both transfer agent processing and contact center costs. Service center executives estimate that 50 to 60 percent of service center costs are payroll related, 5 to 10 percent occupancy, 10 to 20 percent hardware and software, and the remainder result from Internet and line charges. Mutual fund transfer agents have long deployed sophisticated telephone call center technology backed by an array of computer application systems. Figure 12.4 depicts the architecture of the computer and telephone technology supporting a modern mutual fund customer contact center.

Every fund company offers its shareholders toll-free numbers they can call to request information or order transactions. Funds allocate different numbers for different groups and purposes: For example, shareholders with large holdings might get a special number, and the number to call to request literature

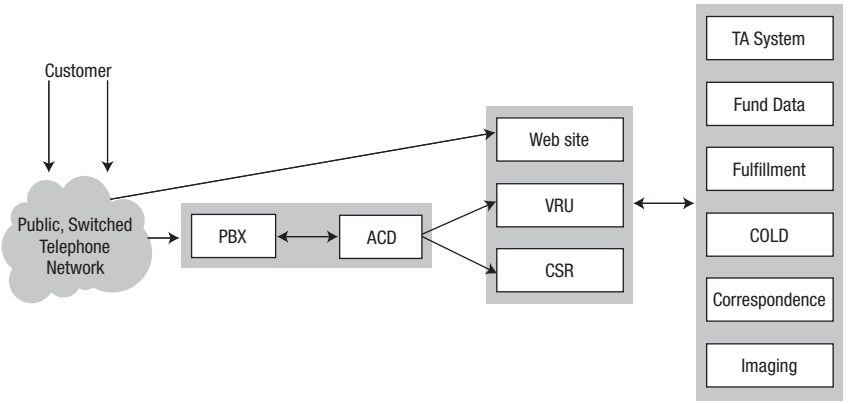
may be different from that for account inquiries. Shareholders, agents, and prospects call these numbers using the standard public switched telephone network. Since 97 percent of United States households have a telephone, the toll-free numbers provide virtually universal access.

These calls come into a private branch exchange (PBX) at the service center and typically to an automated call distributor (ACD). The ACD routes the calls to the VRU or to a CSR according to several criteria: the number that was called, the workload among representatives or even call centers, or the area code from which the call was made. To help level the work load, ACDs can route calls among representatives who are in different physical locations. They also capture and report data on call volumes, wait times, queue lengths, and abandoned call rates to help management ensure that the contact center meets service level criteria.

When the call does go to the CSR, the telephony is often integrated with the computer systems the CSR uses, so that the call comes to the CSR along with a computer screen of basic information. For example, if the caller is an existing shareholder, and the VRU has captured the shareholder ID, then the CSR may get the basic account inquiry screen already filled with the appropriate information. This process is termed a "screen pop." In especially advanced configurations of computer telephony integration (CTI), the system may be able to identify the customer from the telephone number from which he or she is calling. In such cases, a caller may be startled to hear herself being greeted by name without having entered any sort of identifying information.

Fund service centers today recognize that shareholders compare them not only to other fund groups, but across industries to other service organizations

Figure 12.4 Typical Contact Center Architecture



as well. If L. L. Bean can handle telephone requests swiftly and unerringly, then why can't the ABC Fund Company? If FedEx can track a shipment minute-by-minute as it wends its way across the United States, then why can't the transfer agent know the exact status of a request-in-process? Every contact center works toward meeting a set of stated service levels. Commonly measured service level criteria include:

- average wait time for a caller (typically targeted at under ten seconds);
- wait time distribution (e.g., 80 percent of all calls to a CSR answered within 20 seconds); and
- abandoned call rate; that is, the percentage of callers who hang up before their call is answered (typically targeted at no greater than one to four percent).

Modern ACDs measure and report these and other service level characteristics.

Mutual fund service centers record the calls made to their CSRs. They must record calls concerning trades, account inquiries, and complaints to create a record of the transaction as required under the Securities Exchange Act of 1934, Rule 17-Ad. Since no one can tell if an incoming call will lead to a trade order, inquiry, or complaint, as a practical matter they record all calls. This practice also allows them to monitor CSR performance and research complaints later. State laws require the fund complex to inform the caller that the call is being recorded. Thus, many CSRs answer the phone with something like "Hello, ABC Funds, this is John Smith speaking on a recorded line, how may I help you?"

In general, the CSR strives to handle all customer requests with no handoffs and no callbacks. Everyone—the customer, the CSR, the fund group's management—wants the caller's issue to be resolved then and there during the course of the call, by the CSR who first takes the call. This has both competitive service and cost implications. If the CSR can satisfy the caller immediately, not only does this make the caller happy, but it eliminates the time and effort required to create a follow-up item, research it, track it, and call the client back.

To hit these service level targets, the mutual fund CSR today accesses an integrated array of computer systems designed to address any conceivable shareholder request. The following list briefly describes the modules of system function that might be found on the CSR's computer desktop. Different companies combine these functions within physical systems in different ways. For example, correspondence functions may reside in a separate system, or they may be combined into a customer service workstation, along

with contact management, literature order entry, and a graphical interface to the transfer agent system.

- *Transfer agent system*. CSRs, VRUs, and Web sites all need the information maintained in the fund group's transfer agent system to respond to shareholder and agent requests. The current share balance, the transaction history, the account options in effect—all these and more reside in the transfer agent system's files or databases. CSRs usually access the transfer agent system via special customer service front-end programs, designed to facilitate the functions they perform. For example, the front-end usually features inquiry windows containing data to answer the most common questions, as well as easy transaction entry windows for telephone redemptions and exchanges.
- *Imaging and work flow system*. During the 1990s, almost all mutual fund transfer agents installed document imaging systems. In addition to supporting back-office operations, imaging systems greatly enhance customer service. When a shareholder calls about an application or letter he or she sent in, the CSR can retrieve the image of the document within seconds, and answer the caller's question. Typically the images are linked to the records in the transfer agent system for the transaction(s) the letter generated, so the CSR can easily retrieve one from the other. Without imaging, the CSR can only promise to call the shareholder back at some later time, after the documentation has been retrieved from paper or microfilm archives.
- *Case management*. Case management systems create and maintain records of contacts (cases) that shareholders and their agents make with the customer contact center. They capture information about the caller, the issue of the call, the time and date, and any subsequent activity, such as a call back. Using the case management system, a CSR can determine what contact a caller has already had with the organization. The CSR also uses the case management functions to create an item that requires follow-up action, such as a customized piece of correspondence. Some fund groups use the workflow functions of the imaging system to handle case management.
- *COLD*. The periodic account statements that shareholders and their agents receive typically prompt many calls to the contact center—the shareholder sees something on the statement that he or she doesn't understand (or doesn't like). To respond most effectively to a question concerning a statement that the shareholder is viewing, the CSR needs to view exactly the same document. That way, when the shareholder says, "This adjust-

ment transaction on the bottom of page 3 makes no sense to me," the CSR can look on the bottom of page 3 also, see what the shareholder sees, and respond appropriately.

Computer Output to Laser Disk (COLD) makes this possible. The same print file that goes to the laser printer to create the printed statements (or confirmations, or any other document) goes to the COLD unit, and is written onto high-capacity optical disk storage. The COLD retrieval and display system the CSR uses can retrieve this data and display it on the CSR's computer screen exactly as it appears on the printed sheets the shareholder received. As with imaging, this helps the CSR meet the "no handoffs, no callbacks" target.

- *Fulfillment*. Fulfillment systems capture orders for literature and transmit them to the physical distribution center where the items are picked and shipped. Often fund groups combine the order entry part of fulfillment with information about the shareholder or agent, to guide the CSR as he or she takes the order. (For example, the limit on how many pieces of an item a broker can order might be keyed to the volume of business the broker does with the fund complex.)

  Many fund companies set up special groups to service fulfillment and other requests made by prospective, as opposed to current, shareholders. They assign different toll-free numbers in advertising and documents that are likely to generate fulfillment requests. Nevertheless, all CSRs must have some means of entering a request for literature, since this may come up in any call.
- *Correspondence*. Correspondence systems help service representatives generate letters, typically by providing templates with text that addresses the commonly encountered situations. They also provide a means for storing the letters that are sent (often in the imaging system), so that CSRs can refer to them when needed to answer caller questions. Most of today's correspondence systems are based upon a general-purpose word processing utility package, such as Microsoft Word. The most sophisticated ones link tightly to the CSR's other systems, so that they capture the name and address from the transfer agent system, for example, and create a record of the interaction in the case management system.
- *Fund data*. Many questions that come to the CSRs pertain to a fund—what its objectives are, what its performance has been, who the manager is, what options it offers, and so on. No CSR can memorize this information for a fund family that has dozens or even hundreds of funds. Rather than have CSRs dig through prospectuses or printed "cheat sheets" to get the answers, many centers provide this information in online databases.

Service Center Profile: MFS Service Center, Inc.

MFS represents one of the grand old names in the mutual fund industry. MFS' Massachusetts Investors Trust (MIT) is among the longest lived funds in the industry (see "Present at the Beginning" in Chapter 2). Today MFS offers a full range of funds (nearly 70) distributed primarily via broker dealers and operates a sophisticated service center.

MFS serves its shareholders and brokers who distribute its funds from centers in Boston and Phoenix with approximately 80 CSRs in each location. Boston is open from 8 AM to 5 PM (Eastern time) while Phoenix is open from 8 AM to 5 PM (Mountain time) to provide coverage until 8 PM Eastern time. Its various 800 numbers come to an ACD that places most calls into one of three queues: regular teleservice, for most shareholder and broker calls; retirement, for calls about IRA,403(b)'s and qualified plans; and Inner Circle, for calls from selected brokers. The ACD also balances the load between Boston and Phoenix. Separate 800 numbers are used for 401(k) participant calls and are manned until 9 PM Eastern time.

MFS uses DST's transfer agent, imaging, and customer workstation technology, and was a codeveloper with DST of AWD (imaging) during the early 1990s, providing the backbone of the CSR's support tools.

Prior to September 11, 2001, MFS averaged 9,000 calls per day (with spikes of up to 16,000 calls a day just prior to tax deadlines), VRU averaged 135,000 calls a month and Web site averaged 65,000 hits a month. In 2004, e-mails and letters together averaged 5,000 a month; phone calls averaged 5,000 a day, but Web site activity increased to over 800,000 a month (200,000 shareholders and 600,000 dealers). This shift to the Web site has allowed MFS to reduce the number of CSRs by more than 20 percent.

MFS does not see the phone center going away any time soon. The proportion of calls handled by a CSR or directly by the VRU has declined over the past four years. MFS has been able to divert a large volume of activity to its Web site and is continuously adding functions to make the site easier to use; however, shareholders and brokers still want to talk with a person (see Table 12.1).

As a result, for the foreseeable future, the CSRs at MFS, who typically have a high turnover rate, are likely to find their way into the mutual fund industry in a sales support role, sometimes leading to a position as a wholesaler. Jan Clifford, president of MFS Service Center, Inc., said, "After a year on the telephone with shareholders and brokers, a good CSR knows what interests people, and can communicate effectively. It's a natural fit for sales. However, the training and preparation they receive while on the phones prepares these individuals for an entry-level position in almost any department, and we are now seeing them move into accounting and investment-related positions as well."

(See MFS' VRU menu excerpt at the end of this chapter.)

These fund databases give the CSR quicker access to fund information than he or she could get flipping through paper, and the fund company can keep the CSR's information up to date much more easily in a database than it could if the material were printed.

Excerpt from MFS VRU Menu

How to Use MFS-TALK

A quick and easy way to get 'round-the-clock information about your MFS funds

To get information fast, call 1-800-MFS-TALK (that's 1-800-637-8255).

Call Us Anytime

MFS TALK provides 'round-the-clock telephone access to your MFS account. You can call toll-free any hour of the day. All you need is a touch-tone phone.

MFS TALK cannot be used with a rotary or non–touch-tone phone.

If you have a rotary phone, call 1-800-225-2606 any business day between 8 AM and 8 PM Eastern time.

The first time you call

Enter your account number or your Social Security number.

- If you use your SSN, the first time you'll be asked to choose a personal identification number (PIN). Follow the step-by-step instructions and choose a PIN you can easily remember. Once you have selected your PIN, you will only need your SSN and PIN to access your account. This option is available to certain retirement plans.

- If you use your fund and account numbers, you'll need to enter your pre-assigned PIN. This PIN is the last four digits of your SSN unless you have changed it. If you will sometimes be using your SSN to get information, you may want to change this PIN to match the one you selected. To access your account in the future, you'll need your fund and account numbers and your PIN.

MFS TALK is designed to allow you to obtain information a number of different ways. By listening to the prompts, you'll be able to guide yourself through the system and find the way that's easiest for you.

Basic Options	Number
Price and Performance	1
Funds you own	2
Watch List	3
Literature, fund objectives, market outlook	4
MFS mailing and Internet address	5
MFS TALK features	6

System Shortcuts		Number
Return to main or previous menu	(star)	*
Speak to service representative (during business hours)		0
Rewind		7
Forward		9
Skip to end of list or message	(pound)	#

A wide variety of features

The following are direct numbers for some of the more popular options, but experiment with the system to find what works best for you. Once you're familiar with the system and you no longer need to hear the instructions, you can press the appropriate key at any time during the message.

Shortcuts from the main menu

General Fund Information	Number
Current NAV	1 1 1
High/low prices	1 1 2
Price on a specific date	1 1 3
Yield	1 1 4
Total Return	1 1 5
Div/cap gain rate	1 1 6

Accounts You Own	Number
Balance and value (all accounts—SSN access only)	2 1 1
Balance and value (one account)	2 1 2
Year-end value	2 1 3
Last five transactions	2 1 4
Last div/cap gain transaction	2 1 5
Prior year, year-to-date div/cap gain	2 1 6
Price/performance (one fund)	2 2 1
Price/performance (all funds—SSN access only)	2 2 2
Purchase shares	2 3 1
Exchange between funds	2 3 2
Duplicate statement*	2 4 1
Duplicate tax form*	2 4 3
Change PIN	2 5

**Duplicates will be mailed to the address shown on your statement*

chapter 13 | Other Service Providers

Great fleas have little fleas upon their backs to bite 'em, And little fleas have lesser fleas, and so ad infinitum.

— Augustus De Morgan (1872)[1]

Like De Morgan's hierarchy of biters, most industries have hierarchies of greater and lesser firms that support and draw support from one another, and the mutual fund industry is no exception. Funds support investment advisors, administrators, transfer agents, custodians, brokers. These in turn buy services from and support other, often more specialized firms, such as information providers, banks, law firms, software vendors, and consultants. Previous chapters have discussed many of these support service organizations directly or indirectly as they examined investment management, distribution, and client service. There are a few more yet to discuss.

We saw in Chapter 3 that the National Investment Company Services Association (NICSA) enrolls mutual fund industry service providers in its membership. In mid-2004, NICSA included 400 firms. About half of these were management companies that provided services internally. The other half, the third-party providers, form a good representative sample of the types of firms that serve the industry. Table 13.1 shows a breakdown of these organizations by the type of service they provide.

This final chapter on industry functions and the organizations that perform them covers five common industry functions that are often outsourced, functions that have not yet been discussed in detail: specialized printing, literature fulfillment, proxy solicitation and processing, unclaimed property, and lockbox. Finally, it mentions a few of the other unique niches occupied by specialist firms.

Table 13.1 Breakdown of Organizations by Type of Service They Provide

Type of Organization	Count
Mutual Fund Management Company	120
Consulting	91
Transfer Agent	85
Professional Services	77
Fund Services	76
Communications	58
Software Provider	52
Brokerage Services	45
Offshore Fund Services	45
Retirement Plan Services	44
Banking	30
Custody Services	21
Insurance	6

Source: NICSA Membership Profile 2004

Printing Services

Day in and day out, every transfer agent prints a steady stream of internal and external documents—confirmations, checks, letters, and management reports of all sorts. Periodically, however, when shareholder statements must be produced, this stream swells to a massive torrent. When statement time arrives, usually at the end of each calendar quarter, the transfer agent must produce a multi-page, complexly formatted document for almost every shareholder it serves, and deliver it, usually via mail, within a few days of quarter-end. (While a few transfer agents began to offer electronic statements via the Internet in early 2000 and many more offer them today, the vast majority of shareholder statements continue to be printed and mailed.) The challenges this requirement poses support a thriving market for third-party printing and mailing service providers.

Some transfer agents, particularly the very large ones such as those of Fidelity and Vanguard, do almost all of their printing internally. However, many outsource the more difficult jobs to specialists. Shareholder statements form the staple of this outsourcing for two reasons:

1. *Special equipment needs*. Shareholder statements grow ever fancier and more complex. They may be printed in multiple colors, and contain pie charts and other graphics. They may be of varying lengths and formats, depending on the number of accounts a shareholder has, and the options he or she chooses. Once printed, statements must be sorted in various ways to facilitate stuffing and mailing: by number of pages and by zip code ranges, for example. They may be mailed with insertions, such as special announcements or product brochures, selected for each statement according to characteristics of the shareholder. These features all require special printing and handling equipment not otherwise needed to satisfy everyday printing requirements.
2. *The volume spike*. Statements impose extraordinary requirements to print and mail large volumes of documents under a tight deadline. A transfer agent that acquired printing capacity to handle this peak would have many times the capacity needed for daily operations. For example, a transfer agent handling one million shareholders might print 25,000 confirmations, 10,000 checks, and 100,000 pages of internal reports on a typical night. That same transfer agent would have to print from three to six million pages at quarter-end to complete the statements (in addition to all the normal day's printing, plus some month-end reports). And they have to get all these statements in the mail no later than five days after quarter-end.

Many transfer agents find that it is not economical to maintain the capacity and specialized capabilities needed for statement printing, and instead, give this work to third parties: the printing and mailing service providers.

Printers serving the mutual fund industry come in two flavors, as shown in Table 13.2. Some financial printers handle prospectuses, annual reports, and marketing materials—traditional print shop work. Some firms, however, take on the transaction-based printing, such as statements. To handle this work, these firms share several characteristics.

- They make a heavy investment in state-of-the-art printing equipment. For example, large, computerized presses can cost as much as $10 million each.
- They maintain expertise in graphic design in general, in shareholder statement design in particular, and in the production processes involved in generating statements.
- They employ skilled information technology staff to develop the data manipulation programming needed to transform raw data into finished statements.

Table 13.2 Mutual Fund Shareholder Statement Printing Service Providers as of 2003

Firm	Statements	Prospectuses	Annual Reports	Electronic Delivery
ADP	Y	Y	Y	Y
Asset Publishing	N	Y	Y	N
Bowne	Y	Y	Y	Y
Capital Fulfillment	N	Y	Y	Y
Command Financial Press	N	Y	Y	Y
DST Output	Y	Y	Y	Y
GCom2	N	Y	Y	Y
Infographics	Y	N	N	Y
Merrill Corp.	Y	Y	Y	Y
PFPC	Y	N	N	Y
Rapid Solutions	Y	Y	Y	Y
RR Donnelley	Y	Y	Y	N/R
Smith-Edwards-Dunlap	Y	Y	Y	Y

Source: The 2004 Mutual Fund Service Guide, Thomson Media

Typically the printer receives one or more data feeds from the fund's transfer agent to start the statement process. The printer's computers sort, organize, and format this data, and use it to drive the printers, inserters, and sorters. Transfer agent staff review samples of the statement run for quality assurance, often using special accounts set up specifically to test various aspects of statement production. Finally, the statements are stuffed into envelopes and mailed.

All of this is expensive, whether a transfer agent produces the statements itself or contracts with a printing service provider. Activity cost studies in mutual fund companies have indicated that statement preparation and mailing can easily account for 30 percent of the entire cost of providing transfer agent service for the account.[2] For many shareholders, however, the account statement is the one important type of communication they get from their fund between the day they make their initial investments and the day they redeem their shares. Thus fund companies (and their printers) continually refine their shareholder statements to make them better than the competition's.

Many of the firms that offer printing and mailing services also offer literature fulfillment, since that function also involves printing and mailing steps.

Literature Fulfillment

Both investors and agents contact the funds continuously to order prospectuses, statements of additional information, account applications, fund reports, guides to investing, and many other pieces of literature. The process of capturing and servicing these requests is termed literature fulfillment. Many fund groups contract with external specialist organizations to perform at least some of the functions involved in fulfillment.

Typically the transfer agent retains some or all of the telephone contact through which literature orders are placed, while giving the inventory control and shipping part of the operation to a third party.

The complete cycle of literature fulfillment involves several discrete functions:

- *Receiving and storing inventory.* The operator must maintain an inventory of the materials being ordered. Traditionally, this has meant receiving boxes of brochures and forms from printers, and storing them in a warehouse for easy retrieval. In recent years, advancing print technology has enabled fulfillment operators to print some (but not all) items on demand. The operator must record these receipts in its inventory control system, just as any distributor of groceries or video games does.
- *Receiving orders.* Orders come to the transfer agent's telephone representatives, to telemarketing staff, to VRUs, to Web sites, and, in some cases, to the fulfillment operator's own telephone reps. The fulfillment operator must get all of these orders into the system it uses to keep inventory records and to issue picking slips and shipping instructions. Typically, fund groups want to mail responses to fulfillment requests no later than the next day after the request is received, so these orders must be captured and processed immediately.
- *Picking and shipping.* The fulfillment system issues instructions to staff in the warehouse to pick and assemble the items to make up a shipment. It orders any print-on-demand items to be printed. It issues shipping instructions—bills of lading, mailing labels, FedEx forms, and the like. Staff walk through the warehouse, collect the inventory, stage it, package it, prepare it for shipping or mailing, and send it out.
- *Inventory control*. As material is ordered and shipped, the supply shrinks, and items must be replenished. The fulfillment system must post removals as well as receipts, and issue reports of items to be ordered. The more sophisticated systems can weigh such factors as the order lead time, expected usage, required safety stock, and current outstanding orders in determining when an item should be ordered.

Figure 13.1 Example of personalized performance on a statement.

AMERICAN CENTURY

Investor Relations
1-800-345-2021
www.americancentury.com

Quarterly Statement
Period Ending June 30, 1999

Page 1 of 6

James Century and
Jane Century
JTWROS
4500 Main Street
Kansas City MO 64111-6200

Investment Portfolio Summary

Portfolio value on 06-30-1999 $59,747.13

Your portfolio value on 03-31-1999 ..... $58,944.74
Change this quarter ..... +802.39

Your portfolio value on 12-31-1998 ..... $56,903.84
Year-to-date change ..... +2,843.29

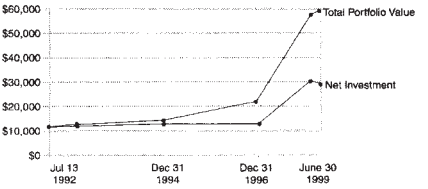
Personal Portfolio Performance

Portfolio Value

This graph compares the total value of your portfolio to the net amount you've invested. **Your portfolio is all of your American Century accounts included on this statement.** *Net investment* is the total amount you put in minus the total amount you withdrew (including any dividends and capital gains paid to you as cash).

Portfolio Return

Your year-to-date total portfolio return since 12-31-1998 ..... 6.75%
Your 12-month total portfolio return since 06-30-1998 ..... 15.90%
Your average annual return since 07-13-1992 ..... 16.63%



Asset Allocation

Entire Portfolio

Domestic Equity		98%
Select	67%	
Income & Growth	31%	
Money Market		2%
Capital Preservation		

International 0%
Domestic Equity 98%
Asset Allocation/Balanced 0%
Specialty 0%
Bond 0%
Tax-Free Bond 0%
Money Market 2%
Tax-Free Money Market 0%

Source: Courtesy of American Century Investments

- *Reporting and data feeds.* The fulfillment operator must report back to the transfer agent in more or less detail. At the least, it must report the volumes of activity on which it assesses its fee. Many fund complexes want and receive much more extensive information, which may include such things as

Upping The Ante Again: Personal Performance On Statements

Once upon a time shareholder statements were nothing but columns of numbers showing the bare facts: You started with so many shares, you bought and sold this many, and here's where you ended. Over the years, however, intensifying competition in the industry has combined with advancing computer and printing technology to make statements ever fancier. Laser printers allowed great variation in type styles and sizes. Printer programming allowed formats to be changed on the fly, tailoring each shareholder's statement to the information at hand. Graphics were added, especially to depict asset allocation and fund returns over time. Industry observers started to rate fund groups according to how "good" their statements were, and the funds, in turn, began touting these ratings in their marketing literature.

The American Century statement, the first page of which is shown in Figure 13.1, features one of the latest improvements: personalized performance. This lets the shareholder see how his or her investment actually did, not just how the fund did under a set of standardized assumptions. Investment professionals point out that most shareholders do not, in fact, earn the published investment returns. These benchmarks assume no purchases or redemptions during the year, and reinvestment of all dividends and capital gains.[3] Any given shareholder's performance might differ from that of the fund as a whole.

Actually determining this individual performance is not as straightforward as it seems. There are both conceptual difficulties (experts argue over what exactly is the correct way to calculate it) and practical considerations (some approaches are computationally intensive – i.e., they use a lot of computer power). For example, an internal rate of return calculation, one way to calculate performance, requires the computer to repeatedly solve a discounted present value problem, trying different discount rates until it finds one that results in a zero net present value.

The industry has been discussing the notion for years. In a speech at a Securities Industry Association conference in 1998, SEC Chairman Levitt said that all fund companies should personalize the statements they send customers by providing tailored returns. "Very, very few have provided this information," he said. "That strikes me as shortsighted."[4] As of mid-2004 the majority of fund groups had not joined American Century in actually doing it.

- detailed and summarized reports of who received what
- status information about the operation, e.g., what was processed, what's pending, what's backordered, etc.
- data feeds that allow the transfer agent to merge records of fulfillment orders with other information about the shareholders in its data files
- status data about the inventory, e.g., what's low or out of stock
- cost allocation information, e.g., shipping costs by recipient type

All in all, this doesn't sound very much like mutual funds and investing, but rather like catalog mail-order merchandising similar to L. L. Bean or Land's End. Many transfer agents feel exactly this way, and are quite happy to farm it out to somebody who is good at handling warehouses, physical inventories, and picking and shipping. The ones who don't are generally large fund complexes that believe they have the size and volume to achieve economies of scale, and/or can do it better themselves by making fewer mistakes.

Proxy Solicitation and Processing

Mutual funds must submit a number of questions to the vote of their shareholders. In concept, this is straightforward enough. The fund determines how many votes each shareholder gets, distributes ballots to the shareholders, collects the ballots the shareholders return, and counts the votes. In practice, the complexities involved in completing all this successfully within a short time cause many fund groups to turn to outside agents who provide specialized proxy services.

The fund's transfer agent starts the process by determining the shareholders' eligibility. This step resembles that of determining eligibility for a capital gain distribution—programming in the transfer agent system determines how many shares each account is eligible to vote on the designated record date. The transfer agent creates a data file with the name, address, and votes for each shareholder. The proxy processor takes over from there. Using the data the transfer agent has provided, the proxy service prepares and mails the solicitations, containing the literature describing the questions and a ballot with which to vote.

Traditionally, shareholders voted their proxies by filling out a paper card and mailing it back. Today, proxy processors use telephone and Internet voting with increasing frequency. For security purposes, each shareholder gets a unique control number with the initial mailing that he or she must provide when attempting to vote on the telephone or Web site.

Next, the processor must count the votes as they come in, and inform fund administration of the results. Shareholders often ignore proxy mailings, and response rates can be quite low. However, some questions, such as fund merger propositions, require the vote of a certain percentage of the outstanding shares to pass. This means that sometimes fund management has to hire a proxy solicitor (which might be the proxy processor) to "get out the vote." This is done via subsequent mailings, and even telephone calls if needed. Finally, the proxy processor presents the fund administration with the final tabulations to document the shareholder vote.

Unclaimed Property

Chapter 12 described escheatment (see also page 303), the process by which the states claim property that has been classified as lost. In 1997 the SEC, concerned about the growing incidence of securities holdings (including mutual funds) being escheated, issued rules requiring transfer agents to search for lost shareholders. Specifically, transfer agents must initiate a search no later than twelve months after the first mail is returned, using an automated database service, at no cost to the security holder. Only after it had conducted this search could it turn the account over to the state.

Unclaimed property trackers help transfer agents exercise due diligence in making the searches and in reporting lost accounts to the states. State unclaimed property regulations remain uncoordinated and confusing. Different states have different dormancy periods (how long before the lost property is considered abandoned). They require reports of lost property at different intervals, with different information, in various formats. Some states accept only electronic reports, some only paper, some both. And all states have become increasingly aggressive in enforcing unclaimed property laws as they search for additional sources of funds. Not surprisingly, many transfer agents choose not to try to master this wealth of arcana, but contract instead with a specialist to handle it for them.

What Price Proxies?

Even a normal, everyday, uncontroversial proxy solicitation costs the fund some amount of money. After all, the ballots have to be printed, mailed, collected, counted, and reported. For generating really big expenditures, however, nothing beats a proxy fight.

In September 1998, Donald A. Yacktman, head of Yacktman Asset Management, filed an unusual proxy with the SEC. Yacktman wanted the shareholders of the Yacktman Fund (then around $500 million in assets) and the Yacktman Focused Fund ($50 million) to dismiss the four independent directors on the funds' six-member board. Over the preceding year, Yacktman and the independent board members had developed increasingly antagonistic relations. Yacktman accused the board members of criticizing and interfering with portfolio management to the point of making it difficult to retain staff. Board members responded that Yacktman regularly ignored prospectus constraints as he went about making investment choices.

So each side tried to fire the other. The board voted to remove Yacktman as president of the funds. Yacktman filed the proxy and hired D. F. King, one of the largest proxy solicitation firms, to persuade shareholders to vote his way. The directors set their

own proxy solicitor, Shareholder Communications Corporation, into motion. In a filing with the SEC, the directors estimated that they would spend $500,000 on their proxy campaign, money that came straight out of the funds. Although he did not disclose the figure, Yacktman likely spent a similar amount of his management company's funds on his campaign.

Two months and $1 million later, the shareholders voted 51 percent to 49 percent to support Yacktman and oust the independent directors. That was not the end of the story, however. Yacktman had sued the directors over their use of fund assets to mount their proxy solicitation effort. The SEC weighed in on the side of the directors, maintaining that the directors' use of the assets was proper. The directors went on to pay about half of the $465,000 the funds owed Shareholder Communications, but were ousted before they could pay the second half. When Shareholder Communications sued for the money they were still owed, the funds, now controlled by Yacktman, countersued to regain what they had already paid.

The SEC did not miss the implications for independent directors in this ugly, expensive little squabble. It finally ruled that directors have access to independent counsel, where independent meant that the legal firm has not represented the advisor or its affiliates for the previous two years. In addition, the Yacktman case prompted several insurance companies to modify their standard Directors and Officers policies to make it easier for directors to insure themselves against suits by an investment advisor. Prior to this, fund directors always shared a policy with the investment advisor. As the Yacktman affair demonstrated, however, if directors are to be truly independent, they must be prepared to fight the investment advisor if necessary.

Lockbox

Some fund groups, especially those that are directly marketed, receive many checks via the mail. To complete the processing of these checks, the transfer agent must deposit each check in the correct bank account and capture the transaction (usually a share purchase) for which the check is paying. Many banks, as part of their suite of cash management products, offer a method of streamlining these functions, known as a lockbox operation. Companies of all sorts—utilities, department stores, cable TV operators—use these to receive payments for bills. Mutual fund transfer agents use them for purchase transaction payments, especially subsequent purchases into existing shareholder accounts. A transfer agent using a lockbox typically sends its shareholders envelopes that are pre-addressed to this lockbox location, as well as purchase stubs that have the account number printed in optical character recognition (OCR) type or some other machine-readable form. These often accompany account statements and transaction confirmations.

Escheatment of the Rich and Famous

One would think that in Boston, of all places, they would recognize the name Fiedler, as in Arthur Fiedler, legendary conductor of the Boston Pops. After all, a ten-foot-high bust of Fiedler greets anyone who walks along Boston's Esplanade, or passes on Storrow Drive, one of the city's busiest thoroughfares. But the prominence of the name was not enough to deter the Commonwealth of Massachusetts' escheatment process.

In 1996, Maureen Goggin of the *Boston Globe* told the story:

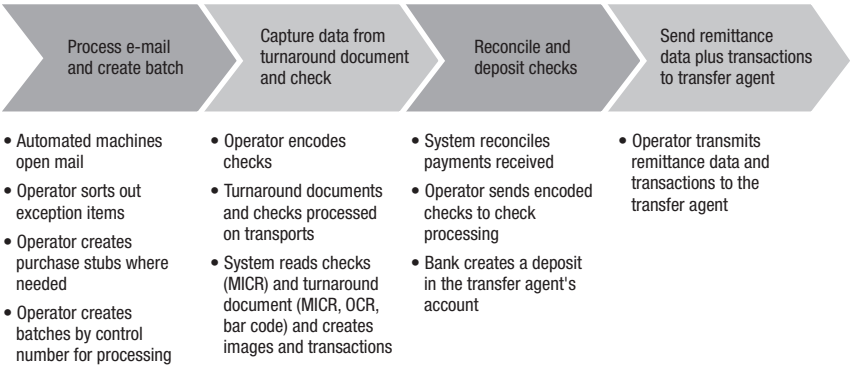
> In 1968, when her husband Arthur was maestro of the Boston Pops, Ellen Fiedler put $53,000 in a mutual fund.
>
> Twelve years later, by then a widow, she moved from Brookline to Cambridge, and Massachusetts Financial Services lost track of her. When she died in 1984, Mrs. Fiedler's three children were unaware of her mutual fund holdings, which were not included in her $2.5 million estate.
>
> In 1992, the company forwarded Fiedler's securities to state Treasurer Joe Malone's abandoned property division….no one from the state contacted Fiedler's heirs. Her holdings—now worth $132,000—went into the general fund. Her children didn't locate or recover the money until the *Globe* contacted them last month.[5]

But the Fiedlers shouldn't feel singled out in all this. Cary Grant and Lucille Ball (yes, the real ones) and other celebrities have also turned up on states' unclaimed property lists. Since the states have little motivation to find the owners and give up this property they otherwise keep, the average rate of return of unclaimed property to owners in 1996 was under 25 percent. Massachusetts, which at the time of the Fiedler incident was busily reducing the staff that searched for unclaimed property owners, didn't even hit 17 percent. State officials claimed that the job of locating lost property owners was best done by private enterprise—in other words, firms that charged the owners a fee for revealing the location of the property. While these "heir-finders" as they are called are not supposed to charge more than 10 percent of the asset value of the lost property, many charge much more since enforcement is spotty at best.[6]

Thus the SEC's action. While the SEC couldn't do much about state practices, it could and did do something about those of the transfer agents. In 1997 the SEC required, among other things, that transfer agents make the initial searches for owners of lost property without turning to third parties that charge the shareholder for returning something he or she already owned.

In a typical lockbox operation, processing goes through four major steps, as shown in Figure 13.2. The mail goes to a post office address from which the bank collects it. Lockbox staff open the mail and separate out those items that require special handling. (For example, shareholders persist in sending

Figure 13.2 Lockbox processing workflow.



address changes, complaints, questions, and other items using those pre-addressed envelopes that are supposed to be used only for purchases.) If the shareholder has sent in the pre-printed purchase stub along with the check, then the payment is ready to process. If not, the operator has to create a form with the account number in machine-readable form. The lockbox operators group the payments to be processed into batches to help ensure accuracy.

Second, the operator MICR-encodes the checks, that is, keys the check amount into a machine that writes it in magnetic ink characters (MICR stands for "Magnetic Ink Character Recognition") on the bottom so it can be read by the processing machines. The encoded checks and the purchase stubs go into high-speed readers that capture the account number from the purchase stub and the amount paid on the accompanying check. Often the process includes taking an image of the payment coupon and the check to be transmitted to the transfer agent. When the operator finishes a batch, he or she reconciles it by comparing the total amount processed with a manually derived total of the check amounts. Once this matches, the encoded checks are sent to check processing in the bank for clearing, collection, and deposit into the transfer agent's account.

Finally, the lockbox operation sends the transactions it has created—typically including the shareholder account number and purchase amount—to the transfer agent. It also sends items that couldn't be handled in the normal stream, items that the transfer agent will have to process as exceptions. The transfer agent feeds the data into its system to produce purchase transactions that are priced and posted along with the transactions coming from other sources.

Mutual fund transfer agents pay for lockbox service in the form of a charge of a few cents per check processed. For some transfer agents, this costs less

than it would if they captured the transactions themselves. Other transfer agents choose to handle this function internally, acquiring and operating the equipment to read the magnetic ink and other types of characters on checks and purchase stubs. Over time, electronic business is likely to reduce the role of lockbox processing, as physical checks in the mail give way to electronic payments.

Others

In addition to the organizations described above, a number of organizations in the NICSA member list provide very specialized services. The firms and services that fall into this other category include:

- More than one company specializes in providing financing for deferred commission schemes, such as contingent deferred sales charge plans. These companies loan the principal distributor the money to be fronted to the selling brokers, in return for an income stream generated as 12b-1 fees are assessed.
- One firm provides NASD-licensed teleservicing staff, on an as-needed basis, to transfer agents whose call volume is exceeding its internal capacity to handle.
- A handful of funds print checkbooks for use by shareholders holding accounts with check-writing privileges.
- Several firms expedite international mail and express delivery.
- One firm specializes in assisting fund companies in preparing their filings to EDGAR, the SEC's electronic document repository.

chapter 14 | Going Abroad: Open-End Funds Outside the United States

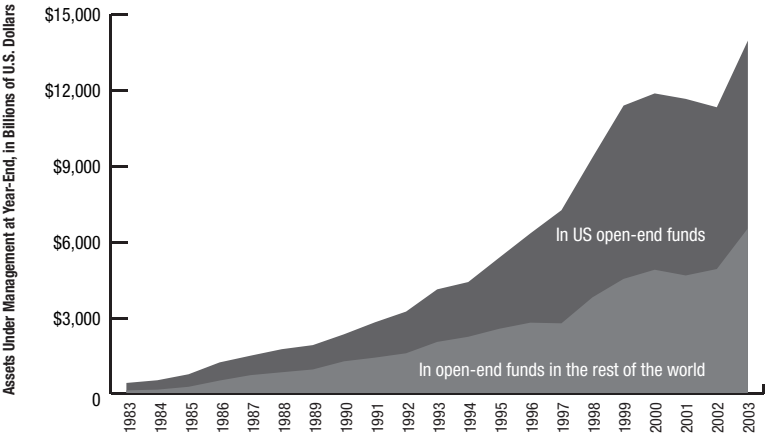
Investors throughout the world share many of the same basic needs and goals as U.S. investors: a comfortable retirement, higher education for their children, and improved living standards. Like their U.S. counterparts, foreign investors are turning to mutual funds as a way to participate in growing securities markets in a diversified manner.

—Investment Company Institute (1997)[1]

The open-end mutual fund was an American invention, and it is within the U.S. financial services sector that open-end funds have played their greatest role, becoming the preferred method of savings for Americans. Since this book has focused on the U.S. fund industry, the term "mutual fund" in all the preceding chapters has meant the U.S. version—an open-end investment company registered with the SEC under the provisions of the Investment Company Act of 1940 and operated in accordance with that Act and its subsequent regulations. Mutual fund industries, however, have developed outside the United States as well. This chapter broadens the view of mutual funds, considering the open-end pooled investment vehicles that are managed and sold in other countries—what they have achieved and where the opportunities for further growth lie.

In the 1990s open-end investment funds began to make significant inroads in many countries, although not to the degree or at the speed they did in the United States. Figure 14.1 shows the growth of mutual fund assets both in the United States and in the rest of the world during the 21 years ending in 2003. During most of this period, the United States generally accounted for half or more of the world's total assets in open-end funds, a proportion that approached two-thirds in the late 1990s before returning to 53 percent in 2003. But the United States did not account for anything close to two-thirds of the

Figure 14.1 Total assets invested in mutual funds worldwide, 1983–2003.



Source: 2004 Mutual Fund Fact Book, Table 37, Investment Company Institute (www.ici.org)

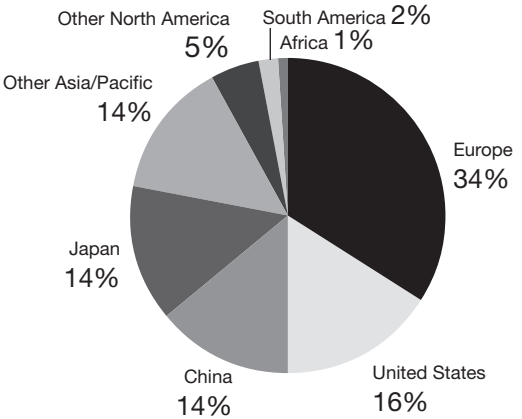
world's investable assets—that figure was actually more like 16 percent in 2003. Mutual funds have been much more successful in capturing this investable wealth in the United States than in other countries.

This has prompted a growing interest among U.S. mutual fund managers (and among big financial services firms in other nations, as well) in expanding to international markets. Today, many nations have the financial wherewithal to make large mutual fund investments, and, therefore, to generate significant revenues for firms managing, distributing, or servicing funds. Since mutual fund-like investment vehicles have not penetrated the financial markets of these nations to nearly the degree they have in the United States, these markets are less saturated and offer more growth potential. And regulatory constraints on selling and operating mutual funds in various countries have been easing recently, at the same time that demographics have been raising the need for increased investment effectiveness, especially for retirement savings. Juxtaposed against a U.S. mutual fund market that many worry is rapidly approaching maturity, these factors—high potential, low penetration, and easing constraints—make foreign markets appear particularly attractive.

Areas of Opportunity

Not every part of the world presents a mutual fund opportunity. If individuals and institutions are to invest in mutual funds, they must first have assets available to invest. Resources available for investing vary widely across the globe. Figure 14.2 shows one measurement of this uneven distribution—the net

Figure 14.2 Distribution of world net domestic savings, 1999.



Source: Calculations by author from World Bank data and Investment Company Institute (www.ici.org)

domestic savings (NDS) for 1999. NDS measures how much of a year's economic output the inhabitants of a country or region have available to save or invest. It is calculated as the gross domestic product (GDP) minus consumption, including the consumption imputed in the depreciation of fixed capital. Since each country's net domestic savings relative to that of other countries changes slowly, the figures for 1999 are representative of most recent years. As Figure 14.2 shows, the wealth available for investing is concentrated among a few regions and countries:

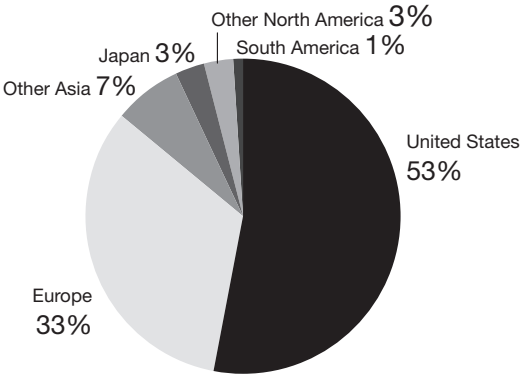
- *Europe*. Wealth in Europe is concentrated among the developed nations of Western Europe, most of which are members of the European Monetary Union. The 34 percent of worldwide NDS that Europe represented in 1999 came mostly from eight countries—Germany, France, Italy, Russia, the United Kingdom, Spain, the Netherlands, and Belgium accounted for over 75 percent of the European total.
- *The Asia/Pacific region*. Two nations within the Asia/Pacific region—Japan and China—accounted for over 65 percent of the region's NDS in 1999. As in Europe, a handful of developed nations accounted for most of the remainder. Adding six more countries—South Korea, Indonesia, Thailand, India, Singapore, and Malaysia—accounts for almost 90 percent of the region's total 1999 NDS.
- *South America and the Caribbean*. This region accounted for only two percent of the world's NDS in 1999, and two-thirds of that came from two countries, Brazil and Venezuela. No other country in the region achieved an NDS in 1999 that constituted even one-half of one percent of the world total.

- *North America*. Within North America, the United States accounts for the lion's share of the savings—over 75 percent of the total among that continent's nations in 1999. Most of the rest was divided about equally between Canada and Mexico.
- *Africa*. Africa as a whole accounted for only slightly over one percent of the world's NDS, and no individual nation within Africa represented more than a few one-hundredths of a percent of the world total.

Other measures of wealth might change the relative positions of regions and countries slightly, but they would paint the same general picture. The United States, Japan, Western Europe, and a handful of developed countries elsewhere hold most of the world's investable wealth—and the potential for mutual fund investing. (China has wealth, as Figure 14.2 shows, but its Communist government has so far made it an unfriendly place for mutual funds, although that may be changing.)

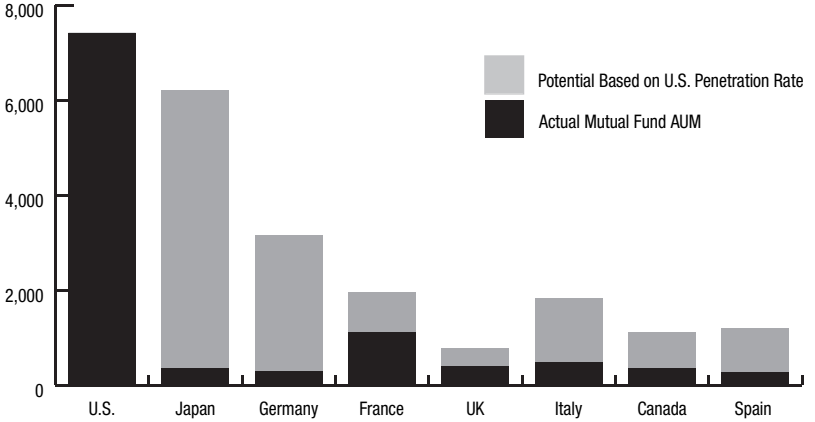
Figure 14.3 shows that the distribution of mutual fund assets does not track the distribution of wealth as measured by net domestic savings (and using other measures of investable wealth would show similar patterns). The United States accounts for a far greater proportion of the world's open-end fund investments than its relative wealth would indicate. This reflects the particular popularity that mutual funds have enjoyed among American investors since the early 1980s. This also identifies the potential opportunity for mutual fund growth. What if the mutual fund industries in the other countries with significant wealth played as large a role as they do in the United States? The difference between the actual size of the industry and what it would have been at U.S. penetration rates forms the "mutual fund gap." Figure 14.4 shows one view of this gap for selected countries, using 1999 NDS as the normalizing factor.

Figure 14.3 Distribution of world open-end mutual fund assets, 2003.



Source: Investment Company Institute (www.ici.org)

Figure 14.4 Estimate of potential additional mutual fund penetration for selected countries.



Source: World Bank, various titles including *Beyond Economic Development*, 2000

Figure 14.4 dramatically illustrates what makes executives in U.S. fund firms so interested in global opportunities. If you believe that market saturation in the United States threatens the continuation of the amazing growth the U.S. industry has enjoyed over the past 18 years, then the prospect of moving to less saturated markets is very attractive. And world financial markets appear far from saturated with mutual funds by U.S. standards.

Why this difference in penetration of mutual funds? In 2004, Khorana, Servaes, and Tufano studied the factors that might explain the differing size of the mutual fund industries in different countries.[2] They found both theoretical support and empirical evidence for several determinants of industry size (defined as the fraction of the country's total securities inventory held by funds) in a particular country. Three factors (each of which represents the combination of several individual variables) are key:

- The industry is smaller in countries where barriers to entry (i.e., cost to establish a fund) are higher.
- The industry is larger in countries where the industry itself is older, the country is wealthier and more developed, and laws that protect investors are better developed.
- The industry is larger in countries where defined contribution pension plans are more prevalent.

This chapter's review of selected countries' fund industries generally reflect these findings.

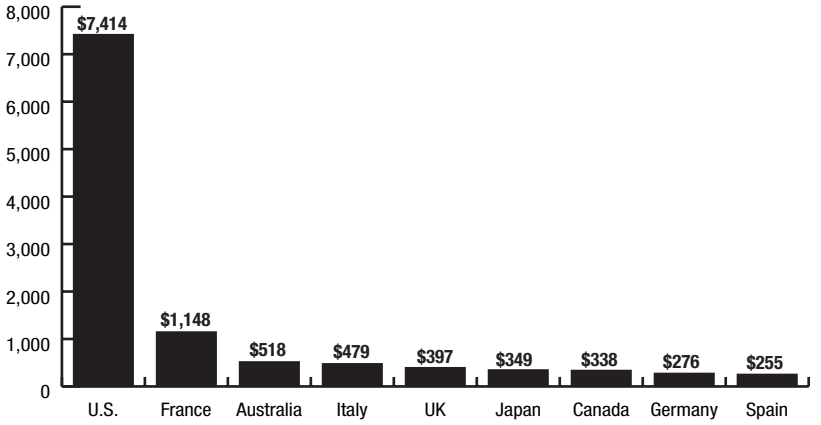
Open-End Funds Outside the United States

As Figure 14.1 shows, open-end funds outside the United States have grown roughly in parallel with the U.S. industry. However, that growth has been concentrated in a relative handful of countries. Figure 14.5 shows the assets held in open-end funds at the end of 2003 for all those countries in which fund assets as measured by the ICI totaled the equivalent of at least US$250 billion. These nine countries accounted for over 80 percent of the world's total mutual fund assets under management.* A discussion of the nine countries outside the United States that account for most mutual fund assets illustrates the range of similarities and differences among non-U.S. mutual funds.

Europe

The developed countries of Western Europe, taken collectively, represent a pool of wealth that exceeds that of the United States, and in 2004, Europe formed the second largest regional market for mutual funds. At the same time, however, Europe remained a collection of smaller markets, rather than a single large market. The European Community has made efforts to establish a common market for mutual fund–like investments. In 1985 it passed the Undertakings on Collective Investments in Transferable Securities (UCITS) directive, permitting investment companies that register in one European country

Figure 14.5 Assets under management (AUM) in open-end funds as of December 31, 2003 (US$ billions)



Source: Investment Company Institute (www.ici.org)

* Luxembourg and Ireland in 2003 also had large and growing mutual fund industries, but they were mostly in offshore funds, that is, funds intended for distribution in countries other than those two small countries.

to sell shares in other European countries. In 2000 the European Parliament amended this directive to liberalize the rules about what types of securities UCITS could hold, making more funds eligible for cross-border sales.

These regulations, along with the introduction of the euro as a common currency, have fueled an expansion of cross-border fund sales, but in 2004 these remained small by comparison to fund sales within particular countries. Cross-border mutual fund sales were still inhibited by marketing issues (differing advertising regulations, for example), country-specific tax and reporting rules, and the difficulty of getting into closed distribution channels controlled by national banks and insurance companies.[3] In fact, these continuing obstacles have prompted Datamonitor to forecast that Europe's share of the global market for mutual funds will actually decline over the period from 2002 to 2007.[4] To understand the European mutual fund market, one must examine it country by country.

France. France has for some time had the second-largest mutual fund industry in the world, trailing only the United States. Open-end funds first appeared in France in 1964 (although closed-end funds, never very popular, had been launched as early as 1945), with laws that created SICAVs (*sociétés d'investissement collective à capital variable*). These correspond most closely to U.S. open-end funds—they are corporations with directors and shareholders, they continually issue new shares as needed, and they are bound to redeem upon demand. In 1967, France added a second type of fund, the FCP (*fonds communs de placements*), which was originally used only to support employer-sponsored plans, but later opened to direct investment by individuals. While the two types of vehicle provide essentially the same thing to investors, their structure and regulation differ, and in 1999 SICAVs were still much more popular, accounting for all but a few percent of the French total.[5]

Total assets at the end of 2003 totaled almost US$1.5 trillion. As in the United States, French fund sales have responded strongly to conditions in the financial markets. Flows of money into funds were strong in the early 1990s as high short-term interest rates made money market funds attractive, languished in the mid-1990s as interest rates fell and the bond market crashed, and regained strength in the late 1990s as the capital markets recovered. French mutual fund market growth continued even through the early years of the twenty-first century, when many other European countries' markets were shrinking. Historically, the French tastes in funds have tended toward fixed income investments—in 2004, according to ICI, the French fund industry's assets comprised 36 percent money market funds, 18 percent bond funds, 22 percent balanced funds, and only 24 percent equity funds.

Fund distribution in France lies primarily in the hands of the French banks. In 2003, roughly three-quarters of French fund sales occurred through banks. The French Post Office, insurance companies, and independent asset managers each shared similar proportions of the remaining sales.

Italy. In a 1999 assessment, State Street Corporation's Global Strategy & Development department characterized Italy as "the hottest place in Europe for mutual funds."[6] In the previous year, the Italian industry had grown at the rate of 100 percent, doubling to the equivalent of almost US$440 billion under management. State Street also forecast that Italy's very high net savings rate of 14.7 percent of gross disposable income would fuel continued mutual fund growth at over 20 percent per year for the next few years. In 1999 this produced a net inflow of about US$100 billion (compared to about $350 billion of net flows to U.S. open-end funds for that year). By 2003, however, this growth rate had been reduced, as the primary driver—savers reallocating their assets from government bonds to mutual funds—had begun to slow.[7] Even so, Italy had the second-largest retail funds market in Europe, with US$478 billion under management at the end of 2003.

Italy also has two types of open-end funds. FCIs (fondo comune di investimento) resemble the French FCPs, but in Italy these are the most common fund structure. An FCI must be managed by an SGR (societa di gestione collettiva del risparmio), a company organized and authorized to manage collective savings, and the Italian equivalent of the U.S. management company. Italy also allows SICAVs (in Italian, societi di investimento a capitale variabile), which, like their French counterparts, are corporations formed solely to hold transferable securities, resembling U.S. registered investment companies.

Banks have the largest share of the distribution of funds in Italy, with Italian banks accounting for about 58 percent of fund sales. The majority of the remaining distribution comes through "mixed systems" in which the banks also play. Foreign firms attempting to enter the Italian market have had to work through these banks via joint ventures, alliances, or acquisitions. Italian investors resemble French investors in their preference for fixed income products—in 2004 the investment allocation for Italian funds was approximately 39 percent in bond funds, 25 percent in money market funds, 15 percent in balanced funds, and only 21 percent in equity funds.

The United Kingdom. Unit trusts and OEICs (open-ended investment companies) make up the UK equivalents of U.S. mutual funds. A unit trust is simply a pooled investment vehicle that operates similarly to a U.S. open-end fund—its investors hold shares in the trust that must be redeemable on demand. (Closed-

"What's in a Mutual Fund's Nom, Namen, Nombre?"

by Stephen Garmhausen, American Banker, December 18, 1998.

Psssst. Wanna buy a *beleggingsmaatschappij*? You might if you lived in the Netherlands, where the term means "mutual fund." If you were Greek, you might sock some of your money away in an *amivea kefalea*. French? You'd put your francs in a—take a deep breath—*société d'investissement collective à capital variable* (SICAV, for short).

Spurred by the privatization of pension systems, the era of retail mutual funds is dawning in Europe, just as the region's march toward political and economic union kicks into high gear. But as Europeans warm to mutual funds, they have discovered a little problem: The region has even more terms to describe the things than it has languages. Calling Europe a mutual fund Tower of Babel might be overstating it—but probably not by much.

"A lot of people get terribly confused, because there is a lot of loosely used vocabulary," said Diana Mackay, whose job as European business development director for Lipper Analytical Services requires her to try to keep the Euro-fund lexicon straight.

The list is rife with terms that are so long and complicated that they must be crunched into acronyms such as SICAV (France), OEIC (the United Kingdom), and FIAMM (Spain).

The good old American term "mutual fund" is widely understood in the old countries. But the Europeans, ever protective of their national identities, stubbornly cling to their own terms. The results can be embarrassing.

Take the term OEIC (open-ended investment company). Adopted in the United Kingdom in the early 1990s, it describes a new kind of mutual fund designed to be sold throughout Europe. The problem is that the word—pronounced kind of like the noise pigs make—is also a slur used to dismiss a person of no importance. Investment companies tried to change the term to "investment fund," but backed down after an outcry from Britain's investment trust industry, which thought the term was too close to its own. (Investment trusts in the United Kingdom are what Americans know as closed-end mutual funds.)

Thus, OEIC appears to be here to stay. Also likely to be around for a while: the Italian *fondo comune di investimento*, or FCI. The Spanish commonly refer to a *fondo de inversion mobiliaria* as a FIM, unless of course they are referring to a money market mutual fund, which is a *fondo de inversion mobiliaria en activos del mercado monetario*, or FIAMM.

The German penchant for creating long, difficult words by smooshing smaller ones together is evident in their mutual fund terminology: *Investmentfonds* encompasses mutual funds aimed at big institutional buyers *(spezialfonds)* and at individual *volk (publikumsfonds*).

U.S. fund companies vying for a piece of the action in Europe say finding the words that will ring a bell with the locals is half the battle.

"You have to get the terminology 100% correct in each country," said Jan Nyholm, a Luxembourg-based executive with Fidelity Investments, which has $8 billion in assets under management in Europe. "Otherwise people will not know what you are talking about."

That is likely to change over time as a handful of terms gain wide currency. Because France has Europe's longest tradition of mutual funds, the French SICAV is widely recognized throughout the region. The term "unit trust" registers particularly well with English speakers. Another important term is UCITS, or, if you have some time on your hands, "undertakings for collective investments in transferable securities." UCITS are funds that adhere to rules laid down in 1985 by the European Commission so that they can be sold throughout Europe.

Most of the region's 15,500 mutual funds now have this "European passport" structure. Sadly, even those without the passport are often referred to incorrectly as UCITS. (By the way, if you guessed that an OEIC is, in fact, a UCIT, there may be a job for you across the pond.) But when it comes down to the individual countries, nationalistic impulses are likely to keep terms like the Greek *amivea kefalea* around for a long time. That may prove perilous. After all, a slight misspelling of that particular term will change its meaning from "mutual fund" to "open-ended big nose."

end fund equivalents in the United Kingdom are called investment trusts.) In 1997, the United Kingdom passed legislation that created OEICs, a version of the open-end fund that meets the European Union's UCITS rules, and that uses the corporate structure common to U.S. and Continental European funds.

The key difference between OEICs and unit trusts from the investor's point of view is single pricing. Most unit trusts have a buying (or offer) price and a selling (or bid) price with a spread of about five percent between them, analogous to U.S. load funds' NAV versus public offering price. OEICs are quoted at a single price (NAV), and any purchase or sale charges (i.e., commissions) are shown separately.[8] The net effect for the investor is much the same. At the end of 1999, OEICs accounted for 14.5 percent of United Kingdom funds, but had grown to 37 percent by early 2002, and were expected to take over more of the market over time. As in the United States, investors may purchase these as after-tax investments, or may use them as the investments in tax-incented savings plans, notably PEPs (personal equity plans) and ISAs (individual savings accounts).

By the end of 2003, unit trusts and OEICs held the equivalent of almost US$400 billion under management, making the United Kingdom the fourth- or fifth-largest market in the world (depending on how you count Luxembourg) for mutual funds. The industry is much more fragmented than in France and Italy—independent asset managers, banks, insurers, and brokers all participate in fund management and distribution. The top ten managers control only 40 percent of the market, and almost 30 organizations each have at least a

one percent market share. During the late 1990s, about 20 percent of fund sales were made directly by the fund company to the investor, with various intermediaries, including financial advisors and brokers, accounting for most of the rest.

British investors' tastes in funds run very heavily toward equities, with about 70 percent of the value of fund assets at the end of 2003 being held in equity funds. Bond funds represented about 11 percent of the industry total, and mixed or balanced funds held most of the rest. United Kingdom money market fund assets were negligible, accounting for less than 3 percent of assets under management. Investors in the United Kingdom have viewed mutual funds primarily as long term investment vehicles.

Germany. Germany displays one of the largest gaps between wealth and actual mutual fund penetration of all countries. This can be attributed to the strong conservatism of German investors, who have traditionally favored savings instruments such as CDs and passbook accounts. It also reflects the fact that the German government provided no tax-advantaged savings vehicle like U.S. IRAs or 401(k)s or UK PEPs and ISAs until 2001, and the so-called Riester schemes introduced then have proven complex and unpopular. As a result, the total in German open-end funds only approached US$276 billion at the end of 2003 (plus a significant additional amount in Luxembourg-domiciled funds owned by German investors).

German retail mutual funds, or *publikumsfonds,* are managed by investment management companies most of which are the subsidiaries of banks or insurance companies. Banks dominate fund distribution, with a 95 percent market share. At the end of 2002, 35 percent of the *publikumsfonds* assets were in balanced funds, with 23 percent in bond funds, 17 percent in equity funds, 3 percent in money market funds, and the remainder in mixed funds. Offshore funds (primarily Luxembourg domiciled) distributed in Germany broke down similarly among asset types.[9]

Some reports of collective funds in Germany also mention *spezialfonds,* or institutional funds. These funds, which held about US$600 billion in assets at the end of 2003, resemble not U.S. institutional mutual funds so much as they do bank trust funds or insurance company separate accounts. They are not sold to individuals, but are mostly used as the investment vehicles for pension plans.

Spain. Spain's mutual fund landscape shares many of the features of France and Italy: domination by banks (they account for 90 percent of the market), a strong taste for fixed income investments (less than 30 percent in equity

funds), and rapid recent growth (27 percent annual growth between 1994 and 1998).[10] Spain's fund industry declined for the period from 1998 through 2002, but by 2003 had recovered to top 1998 levels. At the end of 2003, Spanish funds held the equivalent of US$255 billion under management.

Spanish open-end funds are called FIMs (*fondos de inversion mobilaria*) and come in several flavors, depending on the mix of assets they hold in their portfolios. Funds holding 100 percent bonds are *renta fijas,* those holding mostly equities are *renta variables,* and there are two intermediate stages as well. Money market funds are known as FIAMMs (*fondos de inversion en activos del mercado monetario*). As in most countries, closed-end type funds exist, but command only a fraction of the assets that open-end funds do.

Japan

Japan represents the single greatest potential pool of money for investment in collective vehicles such as mutual funds. With the second-largest economy in the world, and a population conditioned to save as much as 20 percent of its income (as compared to under four percent for the United States), Japan has enormous potential for mutual fund investment. As of 2003, actual mutual fund penetration was miniscule—about US$349 billion, a figure that had actually declined significantly over the previous few years. A Japanese mutual fund industry that was as successful as the U.S. industry in capturing share of wealth would be a giant.

A variety of reasons may account for this minor role the Japanese mutual fund industry has played so far. The considerable problems of the Japanese economy and stock market in the 1990s have clearly contributed, as evidenced by the increases in mutual fund sales once the economy began to rebound in the late 1990s.[11] Distribution has played a role—until recently, only securities companies (i.e., brokers) could distribute funds in Japan. This inhibited fund sales because of the limited networks these companies could muster, and because of Japanese investors' generally negative perceptions of brokers.[12] Then, there is the "Mrs. Watanabe" factor as described in *The Economist:*

> *The usual explanation for this lack of adventure is that Mrs. Watanabe, the archetypical housewife who holds the family purse strings, has been averse to risk, especially since the stock market bubble burst in 1990.*[13]

Furthermore, the track record for funds in Japan has been poor at best. Japanese equity funds have generally underperformed the markets in which they invest by a significant margin, due in large part to a tax law that dilutes the returns for holders of fund shares. Researchers studying this phenomenon in 2001 concluded that mutual fund growth in Japan would be hampered until

the tax laws concerning capital gains were fundamentally changed.[14] The results have been a track record of incredibly low returns for the Japanese saver, and a Japanese mutual fund industry best described as anemic.

The Japanese fund industry began in 1951 with the passage of the Securities Investment Trust Law. This act authorized the creation of investment trusts, structures similar to UK unit trusts, which were formed under a trust contract and had a limited lifespan. This legislation was tuned from time to time over the following 49 years, most notably as part of the "Big Bang," the reform of the Japanese financial services industry in the late 1990s. In 1998, the Securities Investment Trust Law was amended to provide for a number of reforms, including, among other things, a fund structure similar to the U.S. registered investment companies, the EU SICAVs, and the UK OEICs—the corporation that exists solely to be a pooled investment vehicle. As of mid-2002, however, funds of this structure were too new to have tallied any appreciable assets.

The Big Bang reforms also changed the rules for distribution of Japanese funds. Until this change, only securities firms could sell investment trusts, so distribution was limited to networks of brokers. The reforms opened up the distribution channels, and liberalized rules concerning investment managers as well, opening the door for foreign firms to play a larger role in the industry. Like Germany, Japan had no tax-advantaged savings vehicle with which investors could use mutual funds until late 2001, when the Diet approved the introduction of a 401(k)–like savings plan. However, by 2003 the new corporate and individual retirement plans enabled by this law had not yet spurred significant fund investment.

Japanese investment trusts fall into two broad categories: stock investment trusts (that can hold both stocks and bonds) and bond investment trusts (that can hold only bonds and other fixed income securities). According to the Investment Company Institute (ICI), Japanese mutual fund holdings were invested approximately 62 percent in equity funds, 27 percent in bond funds, and 11 percent in money market funds.

Canada

Canada exemplifies, even more than the United States, how a mutual fund industry can be driven by retirement savings. At the end of 1999, about 70 percent of the US$250 billion in Canadian mutual funds was held in RRSPs (Registered Retirement Savings Plans), which resemble U.S. 401(k) plans. As a result of this heavy use of mutual funds as a retirement savings vehicle, 40 percent of Canadian households owned mutual funds, a figure second only to the United States (at 48 percent).[15] Canadian investors shared the conservatism of European and Japanese investors, however—despite the heavy

use of mutual funds for retirement savings, at the end of 2002 equity funds represented only half of the total assets under management, with balanced funds at 17 percent, and long- and short-term fixed income funds representing the remainder.

While there were 75 fund companies in Canada at the end of 2002 (down from over 90 in 2000), the top ten accounted for about 73 percent of the market. The majority of the industry's assets were managed by dedicated investment managers, with bank-associated fund groups in second place. These independent managers typically distributed via networks of brokers and personal financial planners, sometimes proprietary. Investor's Group, for example, the largest Canadian fund company (at US$38 billion under management at the end of 2002), deployed a force of almost 4,000 representatives to sell its products. Banks sold their funds primarily through their branch networks, and these two channels accounted for the lion's share of fund distribution.

Australia

At the end of 2003, Australia's mutual fund industry was among the world's largest, with over $US500 billion under management. This resulted from explosive growth during the previous five years, during which period the assets under management in Australian funds increased by over an order of magnitude. IFSA, the Australian equivalent of the ICI, attributes this growth in large part to Australia's "superannuation," or retirement savings policy. In recent years, the Australian government has passed laws requiring employers to contribute to defined contribution plans for their employees, and encouraged employees to make their own, additional contributions. The greater part of these funds ends up being managed by mutual fund investment managers.

The Australian industry is concentrated, with the four largest managers accounting for almost one-third of the assets under management, and the top ten managers handling almost 60 percent of the market in 2000. Illustrating how strong defined contribution plan requirements can drive mutual fund growth, funds for superannuation accounted for almost one-half of assets under management in Australia.

The Opportunities and Challenges for U.S. Fund Companies

Given the two big pools of wealth in Europe and Japan, and the relative underpenetration of mutual funds into each, it is no wonder that many U.S. fund industry leaders believe that the best growth opportunities in the early twenty-first century lie abroad. Demographic and financial trends have combined to motivate investors worldwide to change their approach to savings and investment.

As the *Wall Street Journal* put it, "falling bond yields, the realization that aging populations make pension cuts inevitable, high-profile privatizations, and a bull market chugging along in the background" all have been pushing investors to include more equities in their mix, often via mutual funds.[16]

The literature discussing global opportunities frequently features assessments that the fund industry in Japan (or in Western Europe, or in some other country) currently stands where the U.S. industry stood ten, fifteen, or twenty years earlier.[17] Perhaps the single biggest factor prompting this comparison has been the growing realization in many parts of the world that individual savings must play a much larger role in the future in funding retirements than they have in the past. This shift began to occur in the United States in the 1980s, and IRA and defined contribution plan investments have fueled much of the expansion of the U.S. mutual fund industry. Many believe that the retirement savings gap will precipitate a similar impetus to mutual fund investing in other countries over the next five to fifteen years.

The retirement savings in most industrialized countries is quite large. Actuarial calculations show the assets that should currently be on hand to produce the income needed to fund the country's retirements, given demographic trends, standards for retirement income needs (e.g., annual retirement income should equal 60 percent of the average of the last five years' income), and projected returns on investments. This calculation gave a figure of almost $19.5 trillion for the United States, for example. In no country did public and private institutionalized retirement plans come near to covering this need in the late 1980s, and recent publications (e.g., Sheehan, 2004[18]) suggest that the situation has changed little since then. Social security—that is, government-provided pension plans (whatever their labels in each country)—all had negative present values, meaning that they would require additional infusions of capital just to fund existing commitments. Private (e.g., corporate) plans covered only a fraction of this total requirement. That leaves the retirement savings gap.

In the United States, this gap was more than covered in 1998 by the $16 trillion pool of household savings, of which mutual funds constituted about one-quarter. In no other country shown does household savings cover the gap. Historically, citizens of Japan, Germany, France, the United Kingdom, and many other nations have devoted their personal savings to conservative, fixed income vehicles because they counted on their employers and governments to provide the foundation for their retirement needs. Demographics—specifically, aging populations that make social security–like schemes almost impossible to finance—are forcing governments around the world to recognize that individual, private savings must become part of the solution. As a result, many

countries—Japan and Germany, for example—have recently adopted tax-advantaged schemes resembling 401(k) or IRA programs.

Were foreign countries to use mutual fund investments to close their retirement gap to the same extent that the United States has done, this would represent an immediate demand for almost US$1.5 trillion additional in funds. In light of this, the assessment of one Scudder Kemper executive appears easily justified: "It's in the international markets, for all the companies, where the growth opportunities lie. That's where everyone is putting a stake in the ground."[19] But that still leaves two big questions—where and how to best drive that stake?

The Opportunity Question—Europe or Japan?

No one disagrees that Europe and Japan constitute the two greatest areas of opportunity for mutual fund growth over the next decade. Industry commentators do disagree, however, on where the most promising immediate opportunity lies. In a nutshell, the argument goes something like this. Japan possesses, in a single, homogeneous market, an enormous pool of wealth that might be converted to funds, but cultural and structural impediments may make that conversion a long, slow process. Europe's market, while slightly smaller, and still fragmented across multiple countries, may be easier to penetrate in the near term, especially for outsiders.

Japan. At the start of the twenty-first century, Japan's great attraction appeared to be the huge pool of wealth invested in low-interest deposit accounts and certificates of deposit. In 2000 and 2001, for example, over US$1 trillion of that pool held in ten-year Postal Savings certificates was due to mature, facing Japanese investors with the need to reinvest it in an environment in which deposit interest rates topped out below one percent.[20] In early 2000, both current and prospective players in the Japanese fund industry awaited with great anticipation the disposition of this *outflow* of money.

In addition, several factors that had inhibited the Japanese fund industry in the past were being mitigated in 2000. Big Bang regulation had broken the securities dealers' monopoly on fund distribution, and eased the sale of foreign funds in Japan. In 1999, the Japanese stock market appeared to be finally recovering after a ten-year period of dreadful performance, making equity investing (a driver of mutual fund investing) more attractive to Japanese citizens than it had been since the days of the "Bubble Economy" in the 1980s. And the Japanese government was close to giving the public a tax-advantaged retirement savings vehicle, similar to the U.S. 401(k) that has had such a large effect on the American mutual fund industry. Some saw in these factors a parallel to the United

States in the early 1980s, and projected a Japanese reallocation of wealth into mutual funds similar to the one that started in the 1980s in the United States.[21]

In 1999 and 2000, mutual fund executives, consultants, and researchers worried about how long it would take before this might happen. The cultural reluctance of Japanese investors to try something that they perceive as risky and unfamiliar could make mutual fund penetration to U.S. levels a 15- to 20-year process. The industry consulting firm Cerulli, in particular, has been bearish on Japanese opportunities for U.S. fund companies. In Cerulli's view, the innate conservatism of Japanese investors will be overcome only slowly, and a fund manager attempting to penetrate the Japanese market must be prepared to make an expensive, long-term commitment to investor education.[22] Nevertheless, such fund powers as Fidelity, Goldman Sachs, Invesco, and Merrill Lynch were by 1999 aggressively and successfully pursuing fund sales in Japan.[23]

Unfortunately, the reality in the first few years of the twenty-first century did not nearly match expectations. The mutual fund market fell victim to anemic economic conditions and weak share prices. Instead of tripling in size during the period from 1999 to 2004 (as was forecast), it declined by 40 percent, and at the end of 2003 was only 70 percent of what it had been in 1999. The defined contribution market had gone nowhere, with DC assets amounting to less than $US4 billion in 2004. At the end of 2004, the Japanese mutual fund market remained one of tantalizing theoretical potential, still mostly unrealized.

Europe. Europe taken as a whole rivals Japan (and the United States) in terms of wealth available for fund investing, but for actual fund investing, Europe cannot yet be taken as a whole. Despite the euro, the UCITS laws, and the EU's efforts to foster cross-border trade, as of 2004 European country borders had not yet become completely transparent to fund marketers. Different countries still displayed different approaches to distribution, usually dominated by local financial institutions (e.g., the banks in Germany and Italy). Different countries' populations still displayed cultural differences in their approach to investing, such as the French preference for money market investments versus the British preferences for equities. And there was still the matter of taxes.

Historically, European tax laws have put offshore funds at a disadvantage relative to funds managed by firms within the particular country. In short, the investor in a given country was likely to pay more in taxes, either directly (e.g., in the form of income tax on dividends) or indirectly (e.g., in the form of differential tax levied at the fund or investment level) on an offshore fund than he or she would pay on a domestic fund pursuing the same investment strategy. For example, Italy levies taxes on income and capital gains distributions from offshore funds but not on those from domestic funds held by its residents.

PricewaterhouseCoopers, commenting in 1997 on European mutual fund tax laws, summed up the situation: "If one were to generalise (and we hesitate to do so) on post-tax yields delivered by funds, it would be that local funds are rarely beaten where they are locally invested."[24] Four years later, PwC and FEFSI again studied cross-border mutual fund marketing in Europe, and commented that the goal of a common market was still constrained by "cultural differences, tax disparities, impenetrable distribution systems, administrative red-tape (costs and registration delays, etc.), differences in interpretation by supervisory authorities, and disparities in national legislation on consumer protection."[25]

These cultural, distribution, and tax differences have inhibited the cross-border sales of mutual funds. Fund companies have not been able to attack the European market simply by setting up offshore funds in Luxembourg or Ireland and selling them to investors in Germany, France, Italy, the United Kingdom, and so on. Nor could the manager of a fund in one of these countries (say, Germany) readily sell that fund to investors in another country (say Italy). While there has been some success with offshore funds, as of 2000 most sales went to funds organized and managed within the countries in which their investors lived. For the fund companies, this fragmentation reduced the economies of scale (and profitability) they might otherwise have achieved—in 1998, for example, the average European fund was one-eighth the size (in assets under management) of the average U.S. fund.[26] By 2003, this had improved only slightly to a relative size ratio of about 6 to 1, according to ICI data in the *2004 Mutual Fund Fact Book*. While many observers believe that the EMU and euro will reduce the cross-border barriers, the question remains as to how long this might take.

Despite these challenges, many believed in 2000 that Europe stood on the brink of a fund explosion. Assets under management in funds in Western Europe had doubled during the five years from 1992 to 1997, and Morgan Stanley Dean Witter forecast in 1998 that US$13 trillion would flow into the European equity markets, much of it via mutual funds, by 2010.[27] (By 2003, only about two trillion of this expected flow had materialized.) The head of FEFSI, the European equivalent of the ICI, has wagered his ICI counterpart that the European fund industry will eclipse the U.S. industry within 25 years.[28] And U.S. fund managers have flocked to Europe—by the early 2000s virtually every large U.S. fund manager had established a presence ranging from distribution agreements with local firms to on-the-ground organic operations.

By 2004, the expectations for fund growth in Europe were closer to being realized than were those for Japan, although they had yet to meet the optimistic forecasts of the late 1990s. During the period from 1999 to 2003, the

European fund market had grown from US$3.2 to 4.6 trillion, declining only slightly in the troubled year of 2001.

The Strategy Question—Organic Growth, Alliance, or Acquisition?

Once a fund company has decided to attack a particular foreign market, it must decide on the strategy to pursue in doing so. It has three basic options.

Establish its own presence in the market and strive for organic growth. The most conservative organizations attack a market by setting up shop themselves in that market, and then growing as circumstances permit. This allows them to make expenditures as they feel the market potential justifies, and relieves them of dependency upon any partner. Not surprisingly, Vanguard has pursued this route exclusively as it has moved into Australia and Europe in the late 1990s and early 2000s.

This approach does not appeal to an organization in a hurry, however. Penetrating distribution channels dominated by local firms (e.g., banks in Europe, securities dealers in Japan) means a slow, difficult process of chipping away to grow market share. Fidelity, for example, spent $100 million in advertising alone in Europe during the 1990s, but still had only a fraction of the European fund market, and its European fund assets were still dwarfed by those of its U.S. funds.[29] A Fidelity director described the notion that American companies could quickly establish themselves and become dominant in Europe as "naiveté."[30]

Establish an alliance with a local player. Establishing an alliance represents something of a compromise between the slow but controlled organic growth strategy and the quick but risky acquisition. An alliance can mean anything from an agreement to cooperate in marketing, distribution, or other operations to a formal joint venture between two firms that creates a new legal entity. The different approaches that Alliance Capital Management and Putnam took to penetrating the Italian market illustrate this range of choices. Alliance entered into an agreement with the Eptaconsors banking consortium to sell Alliance products under the Epta brand name. Putnam established a joint venture, of which it owns 20 percent, with banking firm Gruppo Bipop to distribute Putnam funds in Italy. Putnam's approach took longer and cost more, but Alliance lost the ability to sell under its own brand name.[31]

While alliances can get a firm into a market quickly, they do have their drawbacks. For one thing, when a manager from one country strikes an agreement with an established distributor in another, the lion's share of the revenue may end up going to that distributor, an arrangement unsatisfying over

the long term. And the partners may change their business strategy over time (especially if one of them is acquired), invalidating the assumptions that originally underlay the alliance. A Cerulli study of cross-border joint ventures noted that "a joint venture is like a dating arrangement that will either end in marriage or separation," with more than half of the ventures they studied ultimately being dissolved.[32]

Acquire a firm already established in the target market. Acquiring an established firm may be the fastest way for a fund manager to gain a foothold within a given market, and it certainly controls many of the uncertainties associated with joint ventures. This strategy has two negative aspects, however: expense and risk. The expense drawback is straightforward—the acquiring firm must produce cash or equity up front to effect the transaction. And all acquisitions run the risk that they will fail, to a greater or lesser degree, to realize the results intended, often as a result of inability of the acquiring and acquired organizations to come together effectively. As an illustration of this, consider the case of Investment Advisors, Inc. (IAI).

In 1985 Dain Rauscher sold Minneapolis-based IAI to a British firm, which, after further merger and acquisition, ended up being Lloyds TSB Group PLC, a leading United Kingdom bank. Everything was fine until early 1997, when IAI's CEO decided to retire and Lloyds mishandled the succession. Lloyds' management in London hesitated for a year to either confirm the outgoing CEO's choice or impose their own, during which time "people took sides and built grudges," according to former employees.[33] Over the next three years both talent and clients eroded steadily as Lloyds unsuccessfully tried different approaches to settle the waters, including four different CEOs over one eight-month period.[34] As a result of these troubles, IAI's assets under management declined from a high of $17 billion (about $2 billion in mutual funds) in 1997 to less than $3 billion ($400 million in funds) in 2000, a staggering erosion of over 80 percent.[35] And by the end of 2000, IAI was dead – the remaining fragments sold piecemeal to various parties. While IAI is an extreme case, it is not unique—cautionary examples abound to illustrate how difficult it can be to successfully manage an investment management company acquisition, especially a cross-border one.

These three strategies are not mutually exclusive. In its *Tomorrow's Leading Investment Managers* study, PricewaterhouseCoopers found that many of the participating firms planned hybrid strategies, taking different approaches in different regions.[36] (See Figure 14.6.) Alliance Capital Management, for example, has pursued a variety of strategies in addition to

distribution agreements with local partners such as the Italian banking consortium. At the end of 1998, Alliance offered funds in developing countries such as Brazil, Egypt, and Turkey through subsidiaries, some wholly owned and some joint ventures. In other countries, such as the United Kingdom, Singapore, Japan, and Luxembourg, Alliance had established its own operations. Alliance's CEO described their strategy as one of establishing their own operations where feasible, entering joint ventures "where we think we're incapable of doing it on our own, or where the cost of doing it on our own looks too steep," and making acquisitions when the right opportunity came along.[37]

Figure 14.6 Distribution of intended strategies for international expansion among asset management firms.

Strategy	America	Europe	Asia
Acquisition	34%	30%	20%
Startup Development	63%	53%	40%
Alliance	61%	57%	50%
Hybrid	40%	40%	40%

Source: PwC Tomorrow's Leading Investment Managers Study, 1999

These opportunities are not limited to U.S. fund managers looking abroad. While this discussion has mostly focused on opportunities from the U.S. point of view, the street goes both ways. John Bogle, in a 1999 speech at an International Bar Association meeting, pointed out that the U.S. market has been fair game for foreign asset managers as well:

> *However, it is hardly a takeover of the rest of the world's investment managers by the powerhouse firms in the United States. To the contrary, some of the very largest acquisitions turn that idea upside down: the takeover of Bankers Trust by Deutsche Bank (a combined $380 billion of assets managed); of Wells Fargo Nikko by Barclays Global Investors ($600 billion); of Kemper/Scudder by Zurich ($280 billion); and of Brinson by Swiss Bank Corp. ($380 billion). Total assets managed by these four merged firms alone approach $2 trillion. For better or worse, we are truly living in the age of the giant global manager.*[38]

Ultimately, the mutual fund industry may follow the path of many older industries, becoming dominated by multinational firms that both manufacture and distribute across the globe.

chapter 15 | Going Forward: Issues and Challenges

The mutual fund industry has won the war for the hearts, minds and monies of the vast investing public, but now the occupied territory must be defended, and the fronts are immense.

—Bernstein Research (2000)[1]

When this final chapter was written for the first edition of this book, the mutual fund industry was coming to the end of a 20-year run of almost unbroken growth and prosperity. In the last five years, however, it has had to weather a pair of crises that have tested its durability. This chapter reviews those crises—the bear market of the early twenty-first century and the abusive practices scandals—and their apparent effects on the industry. It also examines a handful of key issues and challenges that the industry faces as it moves forward in the twenty-first century. Previous chapters have touched at least obliquely on these—the question of industry maturity, the continuing debate about the level of fees, and the fundamental disagreement over the value of active management and why investors pursue it. This chapter addresses each of these issues directly, attempting to assess what impact they might have on the industry's future. Of course, they all require the passage of time before definitive answers arrive, but their consideration today should contribute to an understanding of how the industry might evolve.

The Twenty-First Century Crises

The Market Downturn

Mutual funds grew dramatically in popularity during the 1980s and 1990s only in part because they provided a good method for smaller investors to participate in the securities markets. Their growth was also fueled by the fact that American investors were finding such participation increasingly attractive, particularly as a way to invest retirement funds. In some sense,

the fund industry benefited from being in the right place at the right time, riding the long U.S. securities market upswing that started in the early 1980s and extended to the end of the century. As many in the industry are fond of saying, this rising tide lifted everyone's boat, and transformed the industry from a footnote to a major component of the financial services scene.

Yet all along many industry observers worried that things could be very different if the long bull market of the 1980s and 1990s gave way to a sustained bear market. Fund companies had clearly benefited from this bull market, as market appreciation increased their fund management revenues independently of their sales activity. During the 1990s approximately half of the industry's growth in assets came from market appreciation, and the other half from new sales. What the market gives, however, the market could take away. As Lawrence Lasser, then chief executive of Putnam, put it, "growth in this business has become increasingly market-based…we are much more vulnerable to matters outside of our business control."[2] A market downturn that significantly reduced assets and revenues over a sustained period (similar, for example, to the experience of the 1970s), could trigger dramatic change.

The worrisome scenario went something like this: revenues that had been boosted by continually rising asset values would stagnate or fall, squeezing profits, shaking out weaker competitors, fostering price competition, and pushing the industry toward lower margins all around. Investor ignorance of, or tolerance for, current fee levels would be replaced by a much sharper focus on cost when plummeting securities prices brought fund returns closer in magnitude to fund costs. This in turn could change the way investors approached their fund selection decision. The low cost ratios of index funds might play a much larger role in an investor's decision process if average returns were near zero or even negative. Alternative, lower-cost products would begin to supplant mutual funds as preferred investment vehicles. Industry growth would slow, stop, and reverse.

At the beginning of the twenty-first century, the securities markets did in fact stumble badly. In mid- to late 2000 the U.S. equity markets, as reflected by widely followed indices such as the Dow Jones Industrial Average (DJIA) and the S&P 500 reached their all-time highs and began to decline significantly. (The underlying causes of this market decline are beyond the scope of this discussion.) The next year, the shock of the September 11 terrorist attacks drove the market down even more dramatically. For example, between October 2000 and September 2002, the DJIA declined by over 30 percent and other indices showed similar patterns. Assets under management in open-end funds stopped growing and then declined, for the first time in decades. The tide had clearly stopped rising, at least for a while.

This clearly caused some pain within the mutual fund industry. Assets under management declined overall from a high of almost $7.5 trillion in August 2000 to $6.4 trillion in October 2002. In addition, investors shifted assets from equity to fixed income funds (assets under management in equity funds declined by 40 percent during the same period), which generated less profit for the management companies. Reacting to these revenue impacts, management companies froze salaries or laid off staff, cut travel and advertising budgets, and focused programs on retaining customers. But, interestingly enough, not many management companies actually lost money.

A number of factors mitigated the effect of the bear market on the mutual fund management companies. Fund companies moved quickly enough to reduce expenses that could at least partially offset reduced revenues. Nor was there any large movement of money out of funds altogether. By 2001, about two-thirds of the money invested in equity funds was in tax-deferred retirement accounts like 401(k)s and IRAs, where money tended to be very sticky. "Customers aren't walking away en masse," pointed out Strategic Insight CEO Avi Nachmany.[3] And where they did move money from equity funds, it was generally to other types of funds—bond or money market—rather than to alternative investment products. By the end of 2004, after more than a year of better market conditions, the industry's assets under management were essentially back to the levels they had been before the bear market started.

The Scandals

The pain inflicted by the contraction of the market grew sharper in September of 2003 when the New York State attorney general announced that his office had found evidence of widespread illegal trading within the industry. In the months that followed, prosecutors in New York and other states, and then the SEC, charged a number of fund companies, including some of the most well-known names in the industry, with various types of illegal practices. Most common were two forms of stale price arbitrage, one clearly illegal, and one not illegal per se, but damaging and usually forsworn in the fund's prospectus.

- *Illegal late trading*. To be fair to all investors, open-end funds must be forward-priced; that is, buy and sell orders must get the share price determined at the next scheduled pricing calculation after the order is committed. In addition, orders for a fund cannot be accepted after the close of the underlying markets for the securities in which the fund is invested. Violation of either of these rules gives some investors an unfair opportunity to engage in arbitrage with the fund. (This is explained in more detail in Chapter 11.) The first fund scandal broke when Attorney General

Spitzer determined that a hedge fund, Canary Capital Management, had been placing late trades in Bank of America funds, apparently with the connivance of certain fund officials. This allowed Canary to examine the markets in which a fund was invested, and based on information available after the market close, anticipate movement in the fund's share value the next day. The ability to place late trades, however, allowed them to get the current day's price, an opportunity closed to all other fund investors. This illegal practice effectively diverted fund returns from other shareholders into Canary's accounts. Over the next year, several other fund complexes were accused of similar violations.

- *Market timing*. The term originally referred to the practice of trading into and out of a fund to try to keep one's assets invested in the particular sector of the capital markets that is likely to provide the best return over the short term. For example, a market timer may buy shares of an S&P 500 fund when he thinks the stock market is going up, and then exchange the money into a bond fund when he thinks the stock market is likely to fall. By itself, this practice does not violate any law or regulation, but most funds state in the prospectus that investors may not do it. The frequent trades executed by a market timer increase expenses for the fund, and may cause the portfolio manager to sell securities that otherwise would be held. The effect in either case is to reduce the return that investors holding the fund would otherwise earn.

  As the regulators dug deeper into the industry's practices, they found numerous instances in which management companies had ignored the prospectus limitations on market timing, particularly for large investors involved in hedge funds. In many cases these investors were engaging in stale price arbitrage on international funds via this mechanism. If the fund's NAV at 4:00 PM New York time was based on prices in a foreign market that had closed hours earlier, a sophisticated investor could use knowledge of events that occurred after the foreign market close to predict movement in the next day's NAV. But they did so at the expense of the small buy-and-hold shareholder, and in most cases the fund's prospectus explicitly banned such a practice.

In addition, some fund managers were caught engaging in downright illegal practices such as front running. A fund's portfolio manager knows what trades a fund is planning to make, trades that often move the market (i.e., cause a price movement) for the security being traded. An unscrupulous manager could profit personally from this knowledge by placing trades for a personal account to take advantage of this anticipated price movement. This practice,

called front running, is clearly illegal. While this practice was less widespread than either late trading or market timing, a well-publicized incident at Putnam Investments involving both front running and an attempted cover-up resulted in the firing of that firm's CEO in late 2003, and further tarnished the fund industry's reputation.

Finally, the regulators found that a number of practices related to fund distribution were problematic, even if it was not clear that they were actually illegal. These included various revenue-sharing schemes in which intermediaries, typically brokerage firms, compensated their representatives more to sell certain funds that provided enhanced revenues to the brokerage (this is discussed in Chapter 8). Additionally, the regulators took issue with directed brokerage and soft-dollar arrangements that some fund companies had in place. They argued that some management companies accepted suboptimal execution from brokers on portfolio trades in return for those brokers providing fund distribution and/or soft-dollar compensation (discussed in Chapter 5). The net effect, the regulators maintained, was to divert money improperly from the funds (investors) to the management company.

Sanctions for these various abusive practices included fines, firings, and even the exclusion of some individuals from any further participation in the industry. Regulators, including the Securities Exchange Commission and the National Association of Securities Dealers, and lawmakers in Congress forwarded more than 100 proposals for changes to fund regulations in reaction to these incidents. Some were drastic—for example, one called for a "hard close" at 4:00 PM, meaning that all shareholder trades for a day had to be placed at the fund's transfer agent by 4:00 PM Eastern time to get the day's NAV. Others called for the complete elimination of directed brokerage and soft-dollar arrangements. As of 2004, few of the proposals had yet been actioned.

One might expect the industry to be reeling as a result of these blows. One might expect to see investors shifting assets to other vehicles, resulting in further losses of assets, reductions in fund company revenues, management company failures, and fund family closings. In short, one might expect to see an industry in decline. Yet the actual situation at the end of 2004 was nothing like that. After dipping slightly in 2002, the share of U.S. household financial assets held in mutual funds had hit 18.4 percent, its highest level ever. Total fund assets had reached $7.4 trillion, another new high. And, as Crain's Investment News reported on May 17, 2004, investors by and large didn't seem especially troubled by the fund industry's scandals. A recent survey had shown that 57 percent of investors "had no concerns" about the issue.

While these illegal trading practices were deplorable and clearly needed to be stopped, in a way they served to illustrate the fundamental soundness of the

U.S. open-end fund structure. The loss from late trading, market timing, or front running to any individual investor comprised a reduction, typically small, of the return he or she would otherwise have earned. No one came remotely close to losing his or her investment. The open-end structure itself, along with the regulatory requirements for diversification, control of leverage, pricing practices, and on-demand redemption, precluded manipulations that could have led to an Enron-style collapse in share value. And U.S. investors recognized this. As the *Boston Globe* pointed out on May 23, 2004, the scandals had become "old news" for investors, who signaled their continuing confidence in mutual funds by investing $150 billion in new money into funds in 2003.

The fact that the securities markets had begun to recover in 2003, and continued the recovery in 2004, certainly helped. The need to invest for retirement and other purposes remained pressing, securities remain an attractive vehicle, and funds remain a good way to invest for many people. As one observer pointed out, "In the end, that increasing willingness to invest in the equity market overcame any angst [investors] were experiencing."[4]

As of the start of 2005, these two crises had certainly caused pain within the U.S. open-end fund industry, but had not caused any fundamental structural changes. The question still remained, however, as to whether such change might be on the horizon due to the natural business cycle.

The Mutual Fund Industry in the Life Cycle

In mutual fund industry conferences and publications in the late 1990s, speakers and writers had already raised the specter of industry maturity as a threat looming over the prosperity that fund companies had enjoyed over the past 20 years. "Signs of mutual fund fatigue are popping up everywhere," said the *New York Times* in January 2000.[5] "Investors are losing their appetite for mutual funds," began a *Business Week* story the same month.[6] The fund business "is heading quickly toward middle age," said *Barron's* three months later.[7] Speakers at ICI and NICSA conferences around the same time predicted slowing sales, consolidations, and even layoffs in the near- to intermediate-term future.[8] All these observations and predictions shared a common theme—the mutual fund industry, after 20 glorious years of unparalleled growth, was about to mature, and therefore enter a period of permanently slower growth. According to this thinking, the stress caused by the market decline of 2001–2003 could only aggravate this trend. Declining assets would lead to declining revenues and profits, leading to increased competitive pressures, leading to price competition and provider consolidation.

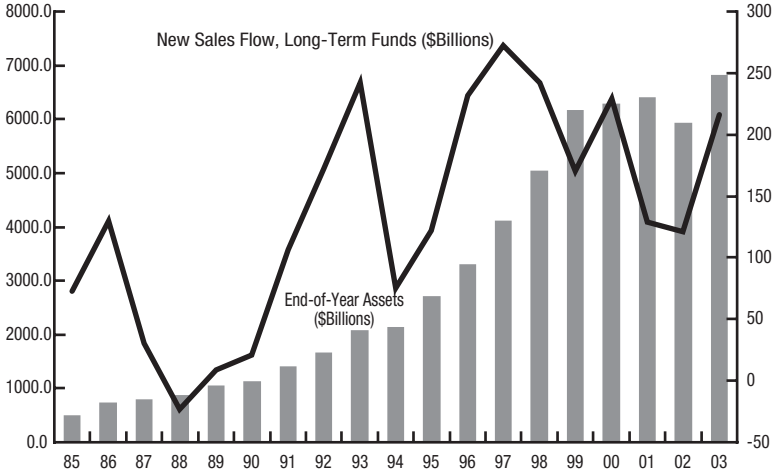
These claims that the mutual fund industry was maturing implicitly referred to a model of the life cycle through which an industry progresses.

The U.S. mutual fund industry spent a long time in the development phase of this cycle, starting as early as the 1920s, when the first open-end funds were introduced. It remained in this phase until about 1980, growing unevenly. From 1940 to 1960, assets under management (and revenues) in the very small industry grew at an average annual compound rate of around 16 percent. From 1961 to 1977, however, the average compound annual growth rate dropped to below 6 percent. (In fact, things got so bad during the bear market of the early 1970s, with fund assets values declining dramatically, that a *Business Week* article in 1973 predicted that "the fund industry as we know it today is likely to disappear.")[9]

Of course, it didn't disappear. Instead, it survived and entered the growth phase of the life cycle around 1980, once investors who had been driven into money market funds by the effects of Regulation Q began to find equity and bond funds attractive as well. From 1978 to 1999, the growth rate in assets varied from year to year, but averaged over 30 percent per year. Growth in net new sales averaged around 15 percent for the same period.

Figure 15.1 shows mutual fund industry asset and sales figures for the period from 1985 to 2003, during which time the industry at least moved from the growth phase to the expansion phase. Figure 15.1 clearly shows the takeoff in sales volume that marks the transition from development to growth.

Figure 15.1 Mutual fund industry assets under management and annual net sales.



Source: 2004 Mutual Fund Fact Book, Investment Company Institute (www.ici.org), Strategic Insight Simfund

The question remains, however, whether the downturn in sales after 1997 is the sign marking the transition to expansion, the transition to maturity, or just another transient turndown due to underlying market conditions such as the ones in 1986–1987 or 1993–1984.

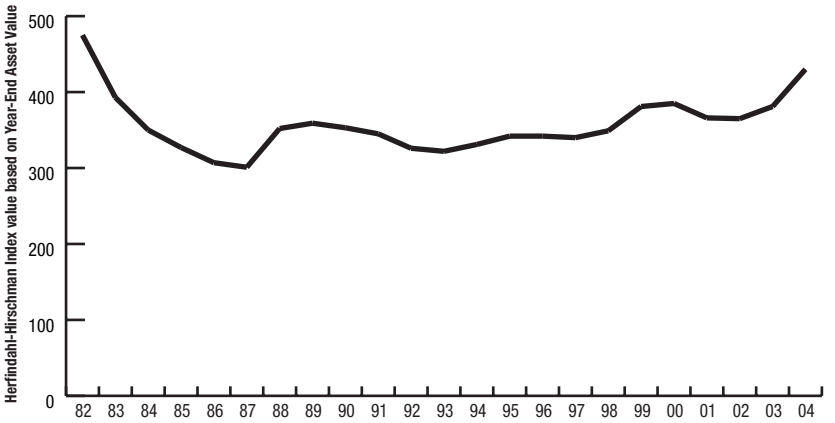
This analysis is complicated by the fact that sales do not equal revenue in the mutual fund industry, as they do in many other industries. For mutual fund management companies, revenue derives from assets under management, whether they result from sales during the current year or sales made 20 years earlier. Thus the revenue curve for the industry would parallel the total assets curve in Figure 15.1, ascending steadily until 2000. As with sales, one must ask whether the curve since 2000 reflects a characteristic of the industry (i.e., degree of maturity) or a transient artifact of the market depression.

This characteristic of fund economics—i.e., revenue relates to assets under management much more than it relates to immediate sales—helps account for the total absence of another typical indication of industry maturity: increasing concentration. Despite a few claims to the contrary, generally based on anecdotal evidence, the mutual fund industry in 2004 had shown no inclination so far to concentrate by erecting substantial barriers to entry and shaking out weaker competitors.

The U.S. Department of Justice uses a measure of concentration known as the Herfindahl-Hirschman Index (HHI) to evaluate the concentration of an industry or market sector—for example, to analyze the implications of a proposed merger. The HHI is calculated as the sum of the squares of the percentage market share of each competitor in the industry. Theoretically, it ranges from a maximum of 10,000 (one monopolist with a market share of 100 percent) down to a minimum of below one (many competitors, none of which has even one percent of the market). In practice, Justice Department guidelines categorize an industry as "unconcentrated" if its HHI value is less than 1,000. The Department views an industry as "moderately concentrated" if the index value falls between 1,000 and 1,800 and "highly concentrated" if it is over 1,800. These guidelines also call for any proposed merger or acquisition to be challenged if it would result in a reduction of 100 points in the index value (50 points if the industry or sector is already highly concentrated).[10] For example, the Federal Trade Commission argued against a proposed merger of Staples and Office Depot, claiming that the HHI value after the merger for the office supply superstore market in 42 metropolitan areas would exceed 5,000.[11]

Figure 15.2 shows the HHI values for the U.S. mutual fund industry for the period between 1982 and 2004. Figures from 1982 through 1987 come from the 1990 study of the industry conducted by Baumol, et al.;[12] the HHI values since then were calculated based on Strategic Insight data. Each man-

Figure 15.2 Herfindahl-Hirschman Index values for the U.S. mutual fund industry.



agement company represents one competitor, and its market share is calculated by dividing the year-end value of assets in its fund family by total open-end fund assets at year-end. (The HHI is based on share of industry revenue, but for mutual fund management companies, revenue is approximately proportional to assets, so calculating the HHI on assets yields equivalent results.) Clearly, the U.S. mutual fund industry, with HHI values bouncing around the 300–400 range for most of the past two dozen years, was neither concentrated nor moving in the direction of concentration in early 2004. Several factors combine to explain this:

- The barriers to entry to the industry have always been low. Establishing the fund itself requires less than $200,000. A fund manager also does not have to commit to large expenditures to establish a support infrastructure. Third-party service organizations can handle any aspect of a fund's operations that the manager does not wish to undertake. An organization that already manages assets (such as a bank, an insurance company, a brokerage firm, or a pension manager) can add mutual funds to its product line at a small marginal cost. Additionally, the development of fund supermarkets in the early 1990s had the effect of further lowering barriers to entry by making effective distribution available at a low fixed cost.

  The large number of very small asset managers that have established funds reflects these low barriers to entry. For example, at the end of 2004, no fewer than 200 different managers each had fund groups with total assets of $100 million or less. Another 175 companies managed fund assets totaling between $100 million and $1 billion each. While some of these are

acquired or otherwise go out of business each year, enough new ones keep entering to have kept the HHI value for the industry relatively stable.

- The fact that revenue derives from assets under management, not new sales, gives fund groups a way to weather periods when their style is out of favor, their performance is unattractive, their marketing is ineffective, or some other factor depresses sales. Revenue changes much less quickly than does net sales. Thus a fund company can endure longer periods of low or even negative net sales than can any company for which revenue depends directly on new sales.
- Investors can and do easily switch from one fund family to another, particularly when investing new money. Investors may be slow to move the money once invested, especially if they have paid a sales charge to get into a fund. However, nothing prevents the investor from placing new investments with a different family, and, as a result, investors will readily invest in fund families other than the ones they already hold, particularly to chase performance. This is why it is misleading to equate concentration of sales flows for a given year with industry concentration. As Strategic Insight has pointed out, sales flows have always been concentrated, but as the years go by, the list of firms gathering the flows changes.[13] In the 1990s, for example, the list of firms that made it to the top 20 in net new sales at least once during the decade includes 46 separate fund companies. Some names appear in the list repeatedly; others appear for only a year or two.
- The change in America's approach to pension funding has combined with the baby boomer generation's looming need for retirement assets to provide plenty of money flowing into the industry for weaker as well as stronger competitors. Even the weaker competitors, some of whose performance was less than stellar, benefited from the flood of IRA and defined contribution funds looking for investment havens.

Industry profitability also did not appear to decline, to the extent that this could be determined in an industry in which many players are either privately held (e.g., Fidelity) or are components within a larger organization (e.g., Pioneer, American Express). Strategic Insight's annual review of publicly held fund company financial results indicated that the average 1998 pretax operating margin for the 18 companies it examined was 35 percent.[14] This figure had been 30 percent in 1994 and had risen steadily since then. Furthermore, the group was uniformly profitable—with the exception of Pioneer, which had suffered losses in its European activities, all the companies in 1998 were at 30 percent or greater pretax margins. Perhaps surprisingly, these figures persisted through the turmoil of the early 2000s. Strategic Insight's review of 2003 results for these companies (now 12 in number, managing 15 percent

of industry assets) showed a pretax operating margins ranging from 27 to 50 percent, averaging 39 percent.[15]

The question, therefore, is not so much whether the industry was mature at the end of 2004 (clearly many measures still indicated not), but rather whether maturity—with its slowing growth, shakeouts, price competition, and reduced profitability—lurked in the near future. Those who believed that maturity was near in 2005 argued their case along four lines (much as they had done in 2000).

Saturation

The saturation argument holds that the industry has reached the point where just about every American who has the means and inclination to own mutual funds already does. One industry executive described the situation in 2000: "In the U.S. market we have reached pretty full penetration of eligible households. [The rate] might go from 40 percent to 45 percent, but it's not going to 60 percent."[16] The ICI reported that 51.7 million households held funds in 2000, a figure that exceeded the number of households that had at least $20,000 of wealth to invest. Fund companies would not find much new money in the households that they had not already penetrated.

Nor was there much to be gained by further capturing assets Americans had placed in bank accounts, since the mutual fund industry in 2000 already held assets more than 1.6 times the size of the banking industry. The only significant potential source of new money for fund purchases within the United States in 2000 was the huge pool of wealth (over $7 trillion) that Americans held in individual securities. Much of this wealth would be transferred between generations over the next ten to twenty years as its owners died. How their heirs would dispose of it remained the 7-trillion-dollar question. Some observers believed that the baby boomer generation, which had embraced mutual funds as its preferred investing vehicle, would move at least some significant portion of this wealth into funds as they received it. Other observers were less sanguine, noting that the top six percent of wealthy households owned 90 percent of this total.[17] Investors at that level of wealth tended to be less attracted to mutual funds, instead preferring to hold individual securities, perhaps in privately managed accounts.

Of course, foreign markets offered another potential source of new money to fuel fund sales. As we saw in the preceding chapter, while many industry participants were actively pursuing that route in 1999 and 2000, they had varied expectations for the rate at which it might pay off. And, indeed, in the first few years of the twenty-first century, foreign markets have proven a relatively tough nut to crack in any rapid manner. Similarly, the privatization of Social

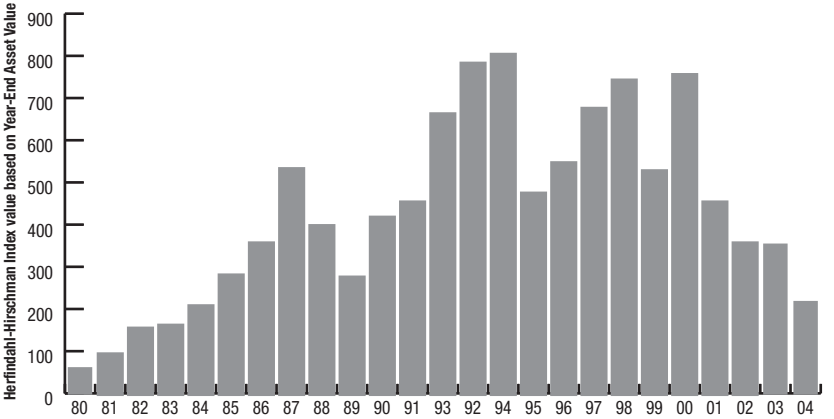
Security could conceivably open a vast new source of funds, should it occur, and occur in a way that would allow individuals or government units to direct investments to funds. In 2000, however, the public debate over this issue was just beginning, and in early 2005 it had yet to arrive even at the point of concrete proposals.

Even without any change to the Social Security system, retirement investing was coming to play an increasingly important role in driving mutual fund sales, relieving the constraint that saturation would otherwise impose. There might no longer be ready pools of money to divert into mutual funds, such as there once was in bank deposits. There clearly was, however, an increasing flow of money into both defined contribution pension plans and individual retirement accounts, and these continued through the early years of the twenty-first century to fuel mutual fund growth.

Slowdown in Product Introduction and Firm Entry

The increase in the number of funds during the industry's growth/expansion phase had been dramatic, as shown in Figure 15.3. (In Figure 15.3, each fund is counted only once, no matter how many share classes it may have.) Many observers have noted that there has finally been a meaningful drop in the number of new funds introduced in past few years, and interpreted it as a sign of industry maturity.[18] As with net sales, the questioned remained whether 2000–2003 actually marked a fundamental turn in the curve or was just one more annual variation in a pattern that varied quite a bit anyway. The actual number of

Figure 15.3 Number of new open-end funds established each year, 1980–2004.



Source: Strategic Insight Simfund

funds available has dropped by a much smaller proportion, and the total remains relatively large. In their study of the global fund industry, Khorana, Servaes, and Tufano (2004) comment on this large number of funds worldwide: "It is intriguing to note that there are over 55,000 different 'products' in this industry—a staggering number compared to almost any other industry."[19]

Similarly, some observers wondered whether the number of firms entering the industry might be starting to tail off. As Strategic Insight put it in early 2000, "Our data clearly shows a marked slowdown in the number of new managers entering the business and showing noticeable growth early on."[20] In 1999, SI data showed 660 managers with open-end fund assets under management; by September 2004, that number had declined to 611—a decrease of about seven percent. However, this reduction in the number of companies entering the industry had not yet had any significant effect on the HHI measure of industry concentration. Nor could anyone predict when consolidation would accelerate to the point that it did show up in the HHI.

Changing Investor Needs

Mutual funds, some argue, best suit the smaller investor, whose wealth is not great enough to achieve adequate diversification economically using individual securities. As investor wealth increases, a privately managed portfolio becomes more attractive for several reasons. It can be tailored specifically to the particular needs and objectives of the investor—for example, assembling a portfolio of fixed income securities with a specific maturity to match an expected life event. It can be managed at a lower cost than many actively managed mutual funds, since it can dispense with much of the overhead required for 1940 Act, publicly-offered funds. And it can be managed to control tax consequences for the investor, disposing of positions and generating capital gains and losses to meet the individual investor's specific needs.

For private portfolio management to be feasible and cost-effective, the investor must have substantial wealth to invest—traditionally, at least a quarter to a half million dollars. At the beginning of 2000, an increasing number of investors, particularly members of the baby boom generation, who had been purchasing mutual funds over the past ten to twenty years, had in fact progressed to this stage of wealth accumulation. And these investors were precisely the mutual fund companies' best customers, the ones that contributed most to fund company profitability. And Internet folios, a form of private investment management sold via the Web, were driving this threshold down. Strategic Insight estimated in mid-2000 that these might be attractive to investors with as little as $40,000. By 2004, however, these had made little headway, perhaps victims to the market depression.

Certainly fund management companies could participate in this business, but it presented certain challenges. As Strategic Insight put it, fund companies would have to "understand the nuances and differences…and ensure the right incremental services and investment processes to meet the needs of managed account representatives and clients."[21] Whether the fund companies could offer products to meet the needs of these increasingly affluent investors would determine at least in part how the industry's cycle would proceed as the twenty-first century unfolded.

Alternative Products

The late 1990s saw the emergence of products that some observers thought might displace mutual funds, even for smaller investors who would not be candidates for private investment management. Two vehicles in particular had gained notoriety and some popularity by early 2000: individual securities traded cheaply online and a group of instruments known as basket securities.

- *Individual securities traded online*. The Internet revolution had at least two direct and significant effects for individual investors—it made trade execution a relatively cheap commodity, and it provided easy access to a vast array of information. An investor in 2000 could go online and look at data from literally hundreds of sources about investment possibilities—data from public records (e.g., EDGAR), from corporations (via their Web sites), from information providers (e.g., Motley Fool, Hoover, Morningstar), from each other (e.g., via bulletin boards and chat rooms). Once an investor had made a decision, he or she could execute a trade with an online discount broker for a flat rate of a few dollars, or even for free under certain circumstances. Millions of investors flocked to these facilities, and the number of online trading accounts with Schwab, E*trade, and others soared in the late 1990s.

  Some observers argued that this combination of access to information and cheap trading reduced the utility of mutual funds.[22] The investor could make his or her own decisions just as well as a fund manager could with the information now available. Trading had become so cheap that institutions such as funds no longer had any cost advantage over individual traders. Why incur the overhead of a fund, they asked, when you could invest more economically and effectively by buying securities yourself?

  These arguments flew in the face of reality along two dimensions. First, the trend among investors in the late 1990s swung hard toward seeking

advice, not avoiding it. As investment options became more complex, and the amount of wealth at stake became higher, investors sought out professional help in the form of brokers and planners, who often still steered them to funds. Second, evidence began to accumulate that merely having access to all that information was not enough. In a fascinating study of six years of activity by over 1,600 Schwab investors who switched from telephone to online trading, two University of California professors found that the same investors who had beaten the market by two percent before going online lagged it by three percent after having become online traders. The study concluded that the "increase in trading and reduction in performance of online investors can be explained by overconfidence augmented by self-attribution bias, the illusion of knowledge, and the illusion of control."[23] Clearly there was still a role for professional management, perhaps bigger than some investors cared to admit.

- *Basket securities*. Sometimes called exchange-traded funds, basket securities reflect preassembled portfolios that model some composite benchmark, but which an investor can buy in a single transaction. For example, Standard & Poor's Depository Receipts (SPDRs) mirror the S&P 500, World Equity Benchmarks (WEBs) mirror a single country's stock market, Cubes (Nasdaq: QQQ) mirror the Nasdaq 100 index, and the list goes on. Each basket security resembles an index fund for a given benchmark. Unlike open-end index funds, however, these basket securities are traded on the exchanges like stocks.

  This brings both advantages and disadvantages. Investors can buy and sell basket securities anytime during the day, at a price dependent on the current value of the benchmark. (Open-end funds in 2000 still calculated prices once per day, although there was some movement on the part of Fidelity and a few others to price some of their open-end funds more often.) They can buy these securities on margin, like common stocks. Since these securities are unmanaged, their expense ratio is low, although the basket securities established by early 2000 had no systemic cost advantage over the least expensive index funds, especially when commissions were considered. The investor also had to pay a brokerage commission on each purchase or sale transaction for one of these basket securities.

  Basket securities appeared in 1993 when the SPDR was created, and in 1999, Strategic Insight estimated that these instruments captured $16 billion in net cash inflows (as compared to over $350 billion for open-end funds).[24] Some mutual fund companies were at least studying the possibility of offering similar instruments, or even exchange-traded versions of their actively managed funds.[25] Vanguard, noting that these

instruments appealed primarily to market timers, introduced ETF versions (VIPERS—Vanguard Index Participation Equity Receipts) of some of its funds as a means of drawing the market timers out of the open-end funds.[26]

In early 2000, some believed that these instruments would become tremendously popular and that many fund companies would begin to offer them.[27] Others, such as FRC, concluded that they might draw new cash into the markets, but were unlikely to divert assets from open-end funds. In fact, in late 2004, ETFs accounted for just over $200 billion under management, about three percent of the assets held in open-end funds.[28] Whether exchange-traded funds would ultimately capture a large share of the assets that would otherwise go to open-end funds still remained to be seen.

The Issue of Price Competition

Increasing price competition and generally declining price levels provide another standard signal of the onset of maturity in the industry life cycle. For example, when electronic calculators were in their development phase, a few competitors (the long-dead Bowmar, for example) sold them for hundreds of dollars per unit. As chip technology advanced and the calculator industry matured, basic calculators became a commodity and prices plummeted to a few dollars per unit (driving Bowmar out of business). In the mutual fund industry, price to the investor means some combination of management fees and sales charges. How have these evolved over the years, and what can they tell us about the phase of the industry? The answer is not straightforward—indeed, the long-standing debate about whether prices (fees plus loads) for mutual funds had gone up or down as the industry evolved still raged in 2004. This brings us to two topics of abiding interest among those who study the mutual fund industry: what investors pay for owning mutual funds, and what they get for what they pay.

Persistent Industry Issues

The Fee Debate

On September 29, 1998, Matthew Fink, president of the ICI, testified before a congressional subcommittee that was holding hearings on improving price competition for mutual funds. Discussing fund costs, he said:

> *Because of the sheer number of competitors, stringent government regulation, clear disclosure, low barriers to entry, and high scrutiny*

> *by the media, the mutual fund marketplace provides a near textbook example of a competitive market structure.…Several independent studies demonstrate that overall, the total cost of investing in mutual funds has steadily declined.*[29]

Not everyone agreed with this assessment. In the very same hearings, an economics professor who had published a number of studies of the industry stated "…the total expenses paid by investors have not fallen over the past decade.…the success of the mutual fund industry has not produced price competition."[30] A cofounder of The Motley Fool, an online financial information service, also testified: "…mutual fund fees are too high. It's certainly not obvious that investors are getting value for their fees."[31] John Bogle, who was drafting his 1999 book on mutual funds at about this time, produced a chart that showed average equity fund expense ratios climbing almost uninterruptedly from 97 basis points in 1981 to 155 basis points in 1997.[32] And Morningstar echoed this, asserting that average annual equity fund expense ratios had climbed from 125 basis points in 1985 to 153 basis points in 1999.[33]

This argument remained unresolved five years later. In 2004 New York Attorney General Eliot Spitzer cited a study that attempted to show that the fund industry overcharged investors by $9 billion per year, by pointing out the differences in the levels of fees charged to retail mutual fund customers versus those charged to defined benefit institutional customers for the same services.[34] The ICI countered in late 2003 with its own study rebutting these findings.[35] And these are just two examples of a raft of charges and countercharges that have continued to flow back and forth.

How could such knowledgeable and informed observers come to such dramatically different conclusions, especially over something that was a matter of fact, not conjecture? After all, mutual fund expenses were a matter of public record, documented for anyone to see in prospectuses, SAIs, and financial reports. The ICI, Strategic Insight, Morningstar, Lipper, various universities, and others had assembled extensive databases of fund figures that could support research on fees. And analyses abounded, produced by academic researchers, the ICI, industry observers, and fund companies. But they came to conclusions that, on the surface at least, appear surprisingly inconsistent.

In fact, the diversity in conclusions rested on at least three areas of disagreement within the approach to fee analysis: what things got counted as fees, what was the proper definition of "average," and whether the question was what expenses *should be* or what they actually were. Varying combinations of opinions on each side of each of these questions resulted in a confusing tangle of conflicting claims.

The Definition of Fund Expenses

Everyone agreed that considering fund expenses used to be simpler. In the early 1980s, investors incurred two kinds of costs associated with mutual funds, each distinct from the other. All shareholders paid a management fee, calculated as so many basis points on fund assets. An investor who purchased a load fund paid a front-end sales commission, calculated as so many percentage points on the cash invested. This sales commission was really the price of getting investment advice from a broker, so the true cost of owning the fund was the management fee, both for load and no-load fund investors. Then rule 12b-1 made it all much more complicated.

As funds began to use rule 12b-1 to pay for marketing and distribution, they were able to reduce explicit front-end loads. These declined significantly—for example, the ICI pointed out that the average maximum front-end load for equity funds was 7.8 percent in 1982, but had gone down to 5 percent in 1998. And while some of this was offset by 12b-1 fees, overall selling costs declined during the 1980s and 1990s. For example, the ICI calculated that the average distribution cost ratio (calculated as the sum of the annuitized load and the 12b-1 fee) declined from 149 basis points in 1980 to 61 basis points in 1997.[36] But the fact that the 12b-1 was an annual fee, like the management fee, clouded the formerly clear-cut distinction between costs of distribution and costs of management for some observers. Some shareholders ended up paying 12b-1 fees when they were not, in fact, getting investment advice from anyone, so that this fee truly added to cost of the fund.

So there were two different definitions of "fund expenses" in use by different commentators and analysts. One group, of which the ICI was a leading member, considered the total cost of ownership, which included both management fees and distribution expenses—loads and 12b-1 fees. This group typically found that this total cost of ownership had declined throughout the 1980s and 1990s. The second group, which included John Bogle and other industry critics, focused on management fees alone, and generally asserted that average management fees had not declined. But that brings us to the second question—what exactly does "average" mean?

The Definition of Average

Another reason that the studies differ is that they base their conclusions on different definitions of average expense. Those who claim that expenses have been rising typically use a simple average, calculated by adding the expense ratios of all the funds in the sample and then dividing the result by the number of funds. Those who claim that expenses have fallen typically use an asset-weighted average, multiplying the expense ratios by total assets for the fund, then summing these results, and dividing the sum by the sum of total assets.

The difference in approaches leads to diametrically opposed conclusions about the trend in expenses.

Management fees calculated as asset-weighted averages have generally declined over the past 20 years, for several reasons.[37] Many individual investors have put a great deal of money into low-cost funds, including the index funds that have been so successful during this period. The funds used by defined contribution plans, another source of industry growth, often are institutional or other low-fee funds. In addition, increasing asset size has triggered breakpoint clauses in many funds' management agreements, resulting in lower fee schedules. Morningstar found that management fees calculated on an asset-weighted basis declined by about 25 percent from 1984 to 1999.[38]

Management fees calculated as simple averages have not declined, since the number of funds has been growing rapidly, and many of the newer funds are more expensive funds. Global funds, many of which are relatively recent, tend to have higher fees than domestic funds. Conversely, relatively few money market funds, with their generally lower fee levels, were opened in the 1990s. And newer funds tend to be smaller, with asset levels below the breakpoint triggers. All of this makes a difference—for example, Strategic Insight pointed out that asset-weighted total expenses for funds in 1998 averaged about one-half of simple average total expenses.[39] At the same time that *Fortune* was claiming that "average" equity fund fees were 143 basis points (in 1998),[40] Strategic Insight calculated an average annual fee for these funds of 54 basis points.

Recent ICI analyses suggest that asset-weighted costs of ownership (operating expense ratio plus annualized cost of sales) for U.S. funds were lower in 2002 than they had been 20 years earlier.[41] Strategic Insight goes on to argue strenuously that this is the only way to look at fees:

> *The use of 'simple mathematical averages,' which equate the fee ratios of the many thousands of tiny expensive funds that hardly anyone owns, with the lower fees among a few hundred funds that control most fund assets, is inappropriate, misleading, and irresponsible.*[42]

Clearly, "average annual fees" meant different things to different people; the differences are significant, and interest remains high.

The Effects of Economies of Scale

Some fund industry critics argue that mutual fund fee levels, whether or not they actually went up or down over the past 15 to 20 years, *should have* gone down significantly as a result of the industry's dramatic growth. They point out that fund management should enjoy definite economies of scale—that it doesn't take twice as many portfolio managers, twice as much research, twice as many trades, and so on, to manage a fund when it grows from $1 billion to $2 billion. Yet management fees, which are largely pegged directly to asset

value, may grow directly in proportion to assets. Many funds have tiered management fee structures, but many do not, and even the tiers do not reflect the true economies of scale, critics charge.

Defenders of the industry point out that it is simplistic to equate industry growth with fund growth. ICI president Matthew Fink, for example, wrote in a letter of rebuttal to a *Business Week* article:

> *The article's most fundamental error was to assume that industry-wide growth should lead to industry-wide economies of scale. But economies of scale do not occur industry-wide; they occur fund by fund. For example, if the industry grows solely because of the entry of many new funds, virtually no economies of scale would be realized.*[43]

In fact, the industry has grown by both entry of funds and growth of individual funds, as Table 15.1 shows. The data do not support either side of the argument conclusively. On one hand, the median fund (defined as including all classes) in 1988 managed $115 million in assets; in 2003, the median fund managed $179 million, hardly a change that would lead to significant economies of scale. On the other hand, only two funds in 1988 had over $10 billion in assets, while at the end of 2003, over 100 funds, accounting for about 38 percent of industry assets, occupied this mega-fund category. Yes, these funds had lower expense ratios than smaller funds, but critics charged that they were still far from what they would have been had economies of scale resulting from this enormous size been passed on to the shareholders.

Table 15.1 Funds, Assets, and Expense Ratios, 1988 and 2003.

	Funds this size as a percent of the industry				Average Expense Ratio* in 2003 w/o marketing costs (basis points)	
	Number of Funds		Total Assets			
Size of Fund AUM ($MM)	1988	2003	1988	2003	Simple	Asset-Weighted
Below 100	61.0%	40.2%	5.8%	1.7%	124.8	107.7
Between 101 and 500	25.1%	33.6%	18.9%	8.7%	90.7	88.5
Between 501 and 1,000	6.9%	10.5%	15.7%	7.9%	79.8	79.3
Between 1,001 and 10,000	6.8%	14.0%	52.0%	43.1%	67.7	63.5
Over 10,000	0.2%	1.7%	7.6%	38.6%	45.4	43.8
All Funds	100.0%	100.0%	100.0%	100.0%	99.3	60.0

*This figure reflects the total net expenses of a mutual fund with the exception of the marketing or sales component.

Source: Strategic Insight Simfund MF Database, 2004

Other critics maintain that it is not actually fund by fund that the economies occur; rather it is fund complex by fund complex. As the assets managed by a complex such as Fidelity (or Janus, or Putnam, or whomever) grows by one or two orders of magnitude, these critics argue, the complex does not need to grow its staffing levels proportionately. And certainly the leading fund complexes grew enormously during the 1980s and 1990s. Table 15.2 shows average expense ratios for funds as of 2003, broken down by the overall size of the fund complex. While Table 15.2 does show some patterns of decreasing expense ratios associated with increasing fund complex size, many believe that the decrease in fees should be much steeper.

Evidence suggests that many shareholders are not upset about, or even aware of, the levels of fees mutual funds charge.[44] Nevertheless, the lack of consensus on such a seemingly simple question as whether prices were going up or down troubled some members of Congress. In 1999, Representatives Dingell and Oxley urged the General Accounting Office (GAO) to conduct an inquiry into price competition in the mutual fund industry. As *Barron's* put it, "Widespread confusion and conflicting studies on whether mutual fund fees have been rising or falling" prompted the request for investigation.[45]

The GAO issued its report[46] to Congress in June 2000, and to the public in July of the same year. Most observers on both sides found it to be disappointing. On the question of fund fee levels, the GAO punted, saying that lack of data made it impossible for them to determine overall industry profitability, or whether any opportunity to reduce fees existed. The GAO further drew widespread industry criticism with its proposal to require fund companies to provide shareholders with individualized fee breakouts in dollars and cents. The ICI, the SEC, NASD, and many fund groups pointed out that mutual fund sharehold-

Table 15.2 Average Expense Ratios* in 2003, by Size of Fund Complex

	Simple Average—Fiscal Year 2003			Weighted-Average—Fiscal Year 2003		
Groupings	**Equity**	**LT Fixed**	**MM**	**Equity**	**LT Fixed**	**MM**
under $1Bil	189.1	79.7	56.3	127.3	73.7	53.6
$1Bil – $9.9Bil	116.9	72.7	49.5	109.0	72.7	47.3
$10Bil – $49.9Bil	112.6	65.7	50.7	96.4	64.6	50.1
$50Bil – $99.9Bil	113.8	68.6	44.1	98.0	68.3	40.6
Over $100Bil	109.6	58.3	42.9	83.1	52.5	32.3

Total expense ratios excluding 12b-1 fees.
*This figure reflects the total net expenses of a mutual fund with the exception of the marketing or sales component.
Source: Stategic Insight Simfund MF Database, 2004

ers already receive more than adequate information on fees, and that the GAO had presented no compelling argument to support its disclosure proposal.[47]

The SEC conducted its own investigation that it reported in December 2000. Their conclusions were not much stronger than those of the GAO, although they did conclude that "during the 20 years covered by our study, the overall cost of owning fund shares may not have risen if changes in sales load are taken into consideration."[48] They further concluded that expense ratios generally declined as the amount of fund assets increased. However, the only recommendations they made concerned methods of disclosure to make fee levels easier for investors to perceive and understand.

One of the more interesting insights into mutual fund fee levels appears in a comparative analysis of expense ratios among U.S. and Canadian funds.[49] This 2003 study notes that the average expense ratio incurred by a Canadian fund investor is 50 percent higher than that paid by a U.S. fund shareholder. Econometric models of funds within the two countries suggest that economies of scale (Canadian funds are smaller) and competition (Canadian funds have fewer competitors) account for a significant portion of this difference. The models attribute another significant portion of the difference to differences in fund characteristics—e.g., U.S. investors buy more relatively expensive international funds. The study suggests that fee levels among U.S. funds are at least partially subject to market forces.

Whatever the real relationship between what funds *should* cost and what they *do* cost, most of that cost, from the investor's point of view, goes to pay for professional management—the decision-making about what underlying securities the fund holds. Whether that decision-making provides something of value to the shareholder is another issue of enduring contention.

The Value of Active Management

We have several times visited the debate between proponents of passive management, as implemented via index funds, and those of active management, as practiced by most fund managers. Previous discussions have focused on specific implications of each position—e.g., on portfolio management, trading, and taxes—without going very far into the debate itself. This chapter pays one final visit to this debate, and attempts to show that both sides are right—but by their own, differing standards of judgment, reconciliation of which may never occur.

A significant body of academic research has focused on this issue, and the majority concludes that investors chase a will-o'-the-wisp in attempting to choose active managers.[50] (There are a few exceptions, such as Walker,[51]

but they are in the distinct minority.) These studies point out that very few active managers outperform the relevant benchmarks for their funds, especially over any period longer than a few years. Some researchers subscribe to the belief that market efficiency makes it impossible for the active portfolio manager to succeed, except by random chance. Others merely point out that whatever the theoretical underpinnings, the actual data show that most active portfolio managers underperform their benchmarks by about the amount of their expenses. The end result is the same, and Nobel laureate Paul Samuelson summarized it bluntly: "A respect for evidence compels me to the hypothesis that most portfolio managers should go out of business."[52]

Active fund managers measuring themselves against a specific benchmark certainly start out with a handicap in the form of their expense ratio. The size of this handicap has itself been the subject of study and controversy, with different researchers finding different values, depending on how market effects and trading costs are counted. Even the most conservative observers, however, admit that actively managed domestic equity funds typically cost the investor between 100 and 200 basis points each year. Thus the active manager must outperform the relevant benchmark by at least this much just to get back to the starting point. Passively managed index funds suffer much less of an expense handicap because of their lower expense ratios.

Furthermore, even if some active managers do overcome the cost handicap and outperform the relevant benchmark, most research indicates that investors cannot identify, ahead of time, which ones will do so. For example, even though several hundred funds achieved spectacular returns in 1999, most research concludes that no data available to an investor in 1998 would have enabled him or her to identify which funds were going to do it. The best the investor can do, these studies say, is to avoid those funds that have had execrable performance, since poor performance does tend to persist.[53] A really bad fund today will probably be a really bad fund tomorrow. Conversely, funds that outperform today are likely to regress towards the mean in the future. Thus, the researchers typically conclude, the only rational decision an investor can make is to choose funds that track, with as little expense burden as possible, the benchmarks appropriate to their investment objectives.

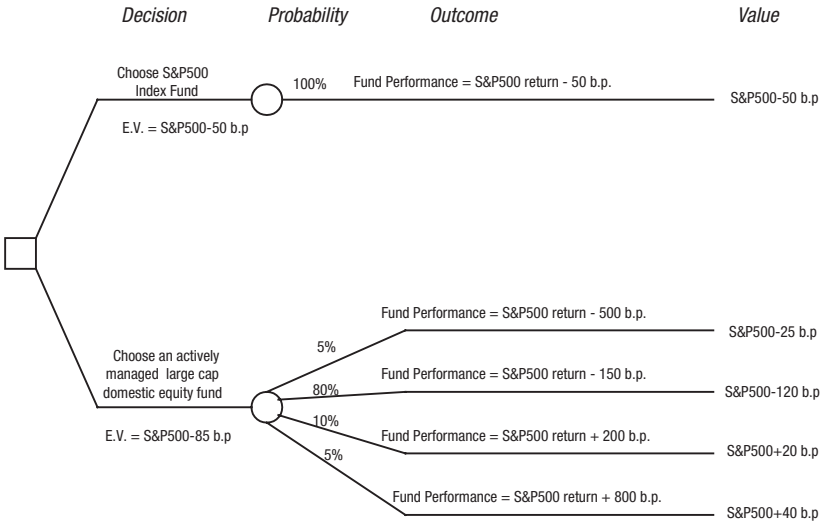
While they don't often say it explicitly, these researchers are recommending a choice that will maximize the *expected monetary value* (EMV) of the investor's risk-adjusted return. An EMV represents the outcome of a decision weighted by its probability. For example, consider the situation represented by the decision tree in Figure 15.4. It assumes an investor who wishes to invest in a large-cap domestic equity fund, and can choose between an indexed fund with total expenses of 50 basis points annually and an actively managed

fund with total expenses of 150 basis points. For both funds, the relevant benchmark is the S&P 500.

No uncertainty attends the performance of the indexed fund relative to the benchmark—it will be the S&P 500 performance minus the fund's expenses. Choosing the actively managed fund, however, leads to a range of possibilities, from substantially underperforming to substantially outperforming the benchmark. To calculate the EMV of this choice, the investor must first identify an appropriate set of possible outcomes, and then assign a probability to each outcome. Research into investment performance indicates that the only reliable basis for these probabilities is historical statistical distributions. The probability distribution for future fund performance is the frequency distribution of performance for the class of funds of which this fund is a member, for a time period appropriate to the investor's decision horizon.

Figure 15.4's decision tree embodies a hypothetical example of such a distribution. Multiple studies of active fund management have indicated that an actively managed fund will most likely track the benchmark, minus expenses, but performing quite well or quite poorly are also distinct, if less probable, possibilities. (Four branches are used in Figure 15.4 to represent this distribution, but more outcomes and probabilities could have been added if they were needed to describe the situation adequately.)

Figure 15.4 Example of a decision tree for an active versus passive fund choice.



When each possible outcome associated with a decision is multiplied by its probability, and the results summed, that sum is the expected monetary value of the decision. Thus in our example, the EMV of the indexed fund choice is 35 basis points better than that of the actively managed fund choice. Viewed in this context, the arguments made by indexed fund proponents boil down to two major points:

1. Repeated analyses of actual fund results show that the EMV of choosing an actively managed fund will always be inferior to the EMV of choosing an indexed fund that tracks the same benchmark but at lower costs.
2. Maximizing EMV is the rational and proper criterion for evaluating investment choices.

But investors, by and large, continue to put the majority of their money into actively managed funds—clearly the theory advanced by most academics does not connect with the actual practice of most investors. The disconnect lies in two areas. First, many investors persist in believing that they can, in fact, distinguish between funds that will outperform their benchmarks and those that will not. Thus they reject the probabilities based purely on historical distributions, and posit probabilities that favor their actively managed fund choice. (And some research suggests that they simply misunderstand fund performance history altogether.)[54]

The overwhelming body of research on fund performance patterns suggests exactly what all the prospectuses say—that "past performance does not guarantee future performance." Investors cannot with any degree of reliability predict the future performance of a particular fund, except in terms of a probability distribution. Nevertheless, hope springs eternal, so many investors (and their advisors) study the analyses and charts produced by Morningstar, Lipper, The Motley Fool, and others, believing that they can pick the fund that is going to outperform. Critics such as John Bogle point out that many industry participants promote this belief that performance can be predicted, since it is in their self-interest to provide investors help with their data, ratings, charts, newsletters, advice, and the like.

Second, even when they believe the historical probabilities, people often deliberately choose not to base their decision on maximizing expected monetary value. Edward Chancellor, in his study of the history of financial speculation, describes the mindset underlying this phenomenon:

> *In a democratic society, such as the United States, where wealth is the ultimate determinant of status, there lingers a constant fear of being left behind materially. We may say that the guiding principle of American*

> *society is not to grow richer in absolute terms, but to avoid becoming poorer in relative terms. And nothing makes a man feel poorer than being a passive bystander during a bull market.*[55]

Chancellor advances this argument to explain why people participated in the speculative excesses of the Roaring Twenties. It works equally well to explain why many investors today view index funds with disdain. The stock market of the 1980s and 1990s in the United States has largely been a bull market. Many funds have turned in, at one time or another, spectacular returns, most notably those triple-digit figures that more than 100 funds hit in 1999. In choosing an index fund, an investor necessarily foregoes any chance of participating in this sort of excess return, however remote that chance might be.

At the same time, the bull market of the 1980s and 1990s made the downside risk associated with choosing an actively managed mutual fund over an indexed fund palatable to the investor. Funds that didn't hit the spectacular figures still, by and large, did pretty well. After all, the average equity fund's annual return during the 16-year period ending in 1998 was 16.5 percent, an attractive performance figure indeed, even if it did miss the Wilshire 5000 index's performance by a couple of percentage points.[56] So for many investors, the issue was one of taking a small risk (of picking an actively managed fund that ends up somewhat underperforming its benchmark) in the hope of achieving a large reward (picking a fund that ends up shooting the lights out). In our example in Figure 15.4, the investor taking this approach would decide to accept the 35–basis points penalty to get the chance at the 800–basis point outperformance.

Some would simply term this approach gambling, and it is true that if people always based their decisions on maximizing expected monetary value, gambling (at least in its institutionalized form in the United States) would cease to exist. Decision theorists, however, recognize that real human beings make decisions in messy, emotion-laden situations, in which information is incomplete and problem structure is ambiguous, using a variety of approaches. Decision theory textbooks describe dozens of such approaches, many of which are much simpler than maximizing EMV.[57] For example, "maximax" rule followers simply pick the alternative that could lead to the best possible outcome, ignoring probabilities. Some approaches include noneconomic considerations. For example, a decision maker taking the "minimax regret" approach chooses the alternative that minimizes the chance that he or she could be second-guessed later. The list goes on and on. Many individuals are simply not coldly rational EMV maximizers.

So the argument will most likely continue unabated. The followers of Burt Malkiel and John Bogle will continue to produce analyses to show that EMV-maximizing investors cannot do better than to put their money into

indexed funds. Investors will continue to make decisions in a variety of ways, some informed, some uninformed, some based on analysis, some based on hunches or wishes or marketing. If a bull market continues, many different approaches will yield satisfying results; in a bear market, few if any will. The bear market of the early 2000s provided an impetus for at least some investors to consider passively managed funds—the percentage of the industry's assets under management in funds categorized by Strategic Insight as indexed rose from five percent in 1998 to almost ten percent at the end of 2004.

Conclusions

But while the golden times of 15 to 20 percent growth may well be gone forever, in early 2005 it was hard to imagine the mutual fund industry continuing as anything but a major player in the U.S. financial services landscape, come bull or bear market. As Putnam's Lasser pointed out, "If the markets are down, people probably need to save more. The basic demographic, cultural, and economic underpinnings of this business are very strong." [58]

Despite the shortcomings claimed by many critics, the industry had delivered on its basic promise of professional money management and risk diversification at a reasonable price, and delivered through both bull and bear markets. It had weathered a series of scandals, regulatory reactions, and corrective actions with repercussions to some individuals and specific firms, but not to the industry overall. Demographic forces (an aging population of baby boomers) and retirement funding policy (the shift to defined contribution pension plans and individual responsibility) continued to drive the U.S. public's need to pour money into investments. Nothing suggested that that need would disappear anytime soon, nor that another product would replace the open-end fund as a vehicle for satisfying it.

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